

Response to Public Comments

Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment

December 29, 2010

Docket #: EPA-R03-OW-2010-0736

Part II

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 20. WIPs

Pages 1385 – 1799

20.0. WIPs	Pages 1385 – 1389
20.1. New York	Pages 1389 – 1424
20.2. Pennsylvania	Pages 1425 – 1509
20.3. Virginia	Pages 1509 – 1667
20.4. West Virginia	Pages 1667 – 1678
20.5. Maryland	Pages 1678 – 1732
20.6. District of Columbia	Pages 1732 – 1738
20.7. Delaware	Pages 1738 – 1742
20.8. WIP Evaluation Methodology	Pages 1742 – 1747
20.9. General/Miscellaneous	Pages 1747 – 1799

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

20 - WIPS

Comment ID 0070.1.001.012

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR would like to be represented on the WIP workgroup in the near future, if you are looking for additional input from another organization that has already demonstrated the commitment to help protect and restore the Chesapeake Bay. We would hope to think that we are a leader in the environmental restoration of AMD impacted watersheds in Eastern PA and throughout the Chesapeake Bay Watershed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0070.1.001.015

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR had been involved with many of the Conservation Districts in the development of their Chesapeake Bay Tributary Strategies and would like to continue to do so in the future implementation of the other phases. We will keep in touch with our Conservation District Chesapeake Bay Technicians within our Region to provide updates to their County Implementation Tributary Strategies.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0252.1.001.013

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

In Frostburg' region, we are within a few miles of the Pennsylvania border, and about 25 miles from Mineral County, West Virginia. Both of these States have not been as forthcoming with appropriate measures in comparison with Maryland in the Phase I WIP per EPA feedback. In addition, Maryland has voluntarily moved its target dates up five

years. If the neighboring States are not required to keep pace with Maryland, a development imbalance will be seen where Maryland communities will be at a major disadvantage with regard to cost of building any new structure. While this advantage would theoretically not be permanent, any advantage that lasts for several years would change development patterns and lead to stagnation or even disinvestment in Maryland, particularly given the weak economy and pattern of population loss in our region which make markets more difficult with respect to justifying capital expenditures, including 'green' factories, home building, or redevelopment projects in our urbanized areas.

Response

EPA and the state partners have agreed to implementing all needed controls by 2025. AS a show of leadership, Maryland has voluntarily set state specific more aggressive deadlines. EPA applauds this action.

Comment ID 0285.1.001.002

Author Name: Rebecca Sutton and Craig Cox

Organization: Environmental Working Group

The EPA's draft Chesapeake Bay TMDL (EPA-R03-OW-2010-0736) indicates that draft versions of all state plans contain "some" (Maryland, Washington DC) or "serious" deficiencies (all other states). All the plans lack "sufficient reasonable assurance that pollution controls identified could actually be implemented to achieve the nitrogen, phosphorus and sediment reduction targets by 2017 or 2025." The backstop measures outlined by the EPA to compensate for shortcomings in the state WIPs all include "additional adjustments to agriculture nonpoint sources as necessary to exactly meet nitrogen, phosphorus and sediment allocations."

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0394.001.011

Author Name: Heavner Brad

Organization: Environment America et al.

The state should also prohibit application of manure and sludge to soils that are highly erodible or otherwise hydrologically unsuitable.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0435.1.001.009

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Economic Impact of Implementation

Comments:

A study by the Hampton Roads Planning District Commission (HRPDC), conducted on behalf of the City and the other Hampton Roads localities, was performed to develop a preliminary cost estimate for implementing the storm water pollution reductions for the Bay TMDL. The cost estimate was based on the following assumptions, however does not include land acquisition or easements for the construction of BMPs on private property:

- Urban acreage data that was included in Bay model
- Cost per acre treated by various structural BMPs based on a study performed by the Center for Watershed Protection
- Treating 19% of urban land with BMPs, which was the average maximum amount of practical application of BMPs across Hampton Roads
- Collecting, storing, and reusing storm water to meet the pollutant reductions that cannot be met with BMPs

Virginia WIP Requirements: Should the EPA and Virginia agree and proceed with the nutrient credit exchange program as outlined in the Draft WIP, the estimated cost per year for the City would be \$15M for the installation and retrofit of BMPs alone. This estimate does not account for storm water system maintenance nor flood reduction projects. The estimated cost includes treatment of 19% of urban land with storm water BMPs in addition to requiring the agriculture or wastewater sector to make additional reductions. However, the reductions made to agriculture or wastewater are two orders of magnitude cheaper per pound of phosphorus than requiring those reductions to be made in traditional storm water retrofits or BMP installation (i.e. \$100/lb for agriculture and \$200/lb wastewater compared to \$15,000(or more)/lb for storm water).

EPA Backstop Requirements: Should the EPA impose the backstops or treatment of 50% of urban land in the Virginia TMDL, the City would likely be required to implement BMPs on all municipally owned lands and condemn significant private property for additional BMPs. The City would spend \$15M on BMPs described above and another \$84M per year on storm water storage and reuse; bringing the total annual cost to Norfolk residents at \$99M per year.

The revenue generated by the storm water utility for the City in FY10 was \$11.1M and is estimated to be \$10.8 M in FY11. These funds are used for storm water system repairs and upgrades, operation and maintenance of storm water pump stations, flood reduction, and also water quality improvement. In order to meet the requirements outlined above, the City will have to increase the storm water revenue 2 to 10 times the existing rates. In light of the economic

recession, it would be detrimental to Norfolk resident to increase their rates at this magnitude.

Recommendations: The City of Norfolk recommends that the EPA consider extending the timeframe as outlined above to give the Commonwealth of Virginia time to strengthen the WIP to avoid the EPA proposed backstops.

Response

EPA reminds the commenter that there is a legal deadline of December 31, 2010 to have the TMDL established, which does not allow for more time to strengthen WIPs. For a detailed response on WIP backstops, please see the response to comment 0067.1.001.009 and section 8 of the TMDL.

Comment ID 0467.1.001.016

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

IV. Has EPA Considered Implementation Issues of Each of the Bay Jurisdictions' WIP's?

A. The WIP's prepared by New York, Pennsylvania, Delaware, and West Virginia may represent what those states are actually capable of doing and not promises that more can be achieved.

1. Has EPA considered that the WIP's from the various states may have been written from different points of view and that a WIP provides no assurance that the actions promised will be achieved?

2. If the states do not have sufficient regulatory authority to satisfy EPA, what regulatory authority can EPA assert to assure that the WIP's, as written, can be implemented?

3. If the states do not have sufficient resources, financial or other, what resources can EPA provide to assure that the WIP's as written can be implemented?

Response

EPA disagrees with the commenter's assertion that the WIPs do not provide assurance that the proposed actions of each jurisdiction will not achieve the allocations of the TMDL. EPA acknowledges that each jurisdiction's WIP may differ with respect to implementation strategies in order to meet the allocations under the TMDL; however, each jurisdiction was required to provide reasonable assurance that strategies proposed in the WIP to meet the allocations could be achieved and maintained. For those jurisdictions that did not meet EPA's expectations as described in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction or meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans, EPA applied backstop allocations. EPA's evaluation of the final WIP for each jurisdiction can be found in Section 8 of the final TMDL report.

See response to Comment No. 0394.001.013 regarding EPA's regulatory authority for the Chesapeake Bay TMDL.

See Comment No. 0038.1.001.024 for sources of funding that are available for Chesapeake Watershed restoration initiatives.

Comment ID 0545.1.001.005

Author Name: Friedman Suzy

Organization: Environmental Defense Fund (EDF)

In closing, we also wish to emphasize the vital importance of economics, cooperation, partnership, and resources in achieving the clean water success we all seek. The ultimate goal of the TMDL - to restore water quality to the Chesapeake Bay - must go hand-in-hand with economic viability of the communities and sectors that call the Bay watershed home. EDF fully recognizes the need and authority of the TMDL to include backstop measures, but at the same time we strongly encourage EPA to continue to seek, support, and advance innovative, collaborative, and cost-effective practices and strategies that will foster both clean water and economic sustainability. We believe this can best be accomplished by working with states to devise adequate Watershed Implementation Plans that promote such practices and strategies, ensure all sectors shoulder their fair share of the reductions, and also provide reasonable assurances, thus avoiding the need for backstop measures.

Response

EPA has worked side-by-side with its jurisdiction partners in developing the TMDL. EPA has also provided extensive hands-on assistance to the states and the District in the development of their Watershed Implementation Plans. Through the Chesapeake Bay Program committees, principally the Water Quality Goal Implementation Committee (WQGIT), as well as other stakeholder meetings, EPA has closely worked with the jurisdictions on all aspects of the TMDL. A list of meetings of the WQGIT and other meetings involving EPA and the jurisdictions are included in Appendix C of the final TMDL report.

In addition, in the time from the draft WIPs to the final WIP, EPA has worked closely with the states in identifying the deficiencies in the WIPs and bringing those issues to resolutions. Fortunately, from these efforts, the final state WIPs are much improved from the drafts. As a result, EPA has removed or reduced the backstop allocations.

20.1 - NEW YORK

Comment ID 0103.1.001.009

Author Name: Laudeman Todd

Organization: Tioga County Landowners Group

To continue to promote clean water conservation in the Upper Susquehanna Watershed the USC districts use a

multiple barrier approach to address nonpoint source issues. This approach addresses water quality issues at the source, across the landscape, focusing on the stream corridor, and is promoted programmatically through research, outreach and training.

The USC integrates 3 major focus areas: Wetlands, Streams and Agriculture.

Under the Umbrella of the Agricultural Team, which includes partners from NRCS, DEC, Ag and Markets, and major universities, the SWCDs promote several programs that include:

- Voluntary incentives through the Agricultural Environmental Management Program (AEM)
- Regulation through permitting of Concentrated Animal Feeding Operations (CAFO)
- Funding for implementation through the Agricultural Nonpoint Source Abatement & Control Grant Program (AGNP), and USDA Farm Bill Programs
- Support of "wall to wall" buffers through Graze-NY
- Commitment to proper nutrient management through rigorous conservation planner certification process
- Regular training for SWCD and NRCS Employees, and SWCD's Board of Directors
- Environmentally and Agronomically-sound guidelines from the Cornell University

This approach in a watershed with 70 percent forest cover, low intensity agriculture on a sufficient land base, and a decreasing population, leave little room for additional source reductions and place a disproportionately heavy burden on agricultural resources in NY.

Response

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community or on any one sector such as agriculture. EPA allowed and encouraged jurisdictions to develop a Watershed Implementation Plan that meets the TMDL allocations in the manner most feasible for that jurisdiction. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to Comment No. 0139.1.001.017. Furthermore, in EPA's professional judgement, the loadings allocated to New York is equitable. Please see response to comment # 0080-cp.001.002.

Comment ID 0151.001.012

Author Name: Woodford RC

Organization: Chenango County Board of Supervisors

we support NYS Department of Environmental Conservation's recommendations in their draft Phase I Watershed Implementation which recognizes the environmental stewardship of New York farmers and inherent inequality of the current EPA proposal

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0185.1.001.017

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

New York

Overall

New York has adopted a hostile posture toward TMDL process, noting that the "submission of this draft Phase I WIP should not be interpreted as New York's acceptance of these draft allocations.... New York has repeatedly expressed serious concerns over the fundamental fairness of these allocations..." For transparency of information, New York discloses a fair amount of specific data to establish a baseline for comparing future progress. For strength of program, the pollution control programs and authorities that are listed in New York's WIP sound promising, and the WIP boasts of being stronger than federal requirements. However, the draft WIP does not provide enough information to determine whether the strength on paper actually translates into strength in substance.

In addition, New York is highly critical of the model and the fairness of allocations. It points out that while the state constitutes 10 percent of the land area in the watershed, it receives less than 5 percent of the total nitrogen. In contrast, Maryland constitutes approximately 14 percent of the total Bay watershed but has received more than 20 percent of the nitrogen allocation. However, while not proportional to the land area, the allocations are roughly proportional to each state's actual contribution of nitrogen: New York contributes 6 percent and Maryland contributes 20 percent of the total nitrogen to the Bay.

The draft WIP would lower the sediment discharges to a level that is 16 percent below the target allocation. However, the draft WIP still permits nitrogen and phosphorus discharges to be 15 percent and 14 percent, respectively, more than the level allowed by the target allocation.[FN 17]

New York's final Phase I WIP should provide greater detail about the NPDES permitting, enforcement, and compliance program, particularly if the state intends to rely on increased enforcement as its main contingency plan if existing compliance rates and programs fail to achieve the needed reductions. The final WIP should also provide more information about the participation and compliance rates with voluntary programs for nonpoint sources of pollution.

NPDES Permitting

In the draft WIP, New York provides solid baseline information, such as statistics on the number of CAFOs and wastewater facilities, but fails to provide a snapshot of the universe of all NPDES-regulated facilities and the number of which have up-to-date NPDES permits. The draft WIP does not say when the New York's NPDES permitting program will be in compliance with the pollutant allocations in the Bay TMDL. Moreover, New York failed to establish deadlines, timelines, or qualitative goals for updating and reissuing expired and administratively continued NPDES permits. For

example, the state could commit to reissuing and updating a certain number of permits per month for a certain program and could include this target as one of its two-year milestones.

Enforcement of NPDES Permits

The draft WIP includes some information by which to judge the enforcement of NPDES permits. For example, it cites an inspection rate of 50 percent for CAFOs and a total penalty collection of \$11 million for CAFO penalties, as well as 2000 staff trained for construction site inspections.[FN 18] However, this information is incomplete. In the final WIP, New York should include a table or other graphic that clearly lays out its enforcement activities per sector. This information should include: the number of physical, on-site inspections conducted per sector; the number of violations and penalty actions or the total amount of penalties assessed; information on major facilities that are in significant non-compliance; and the level of enforcement resources.

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

The New York WIP does not discuss inspection rates or existing or needed resources to regularly monitor implementation of best management practices. In the final WIP, New York should include this information because it is crucial to providing the necessary reasonable assurances that nonpoint sources will achieve their allocation of pollutant reductions.

Contingencies

New York is relying heavily on increased enforcement and compliance activities as its contingencies. It already has the authority to conduct these activities as primary pollutant control activities. If greater enforcement is the primary contingency, however, New York should provide more detailed enforcement information to demonstrate how this contingency will be effective.

Concentrated Animal Feeding Operations

The strength of New York's CAFO program is that, together with the Agriculture Environmental Management program, 95 percent of dairies in the Bay watershed are covered, significantly more than the federal CAFO Program alone. For example, the state program covers all farms with as few as 200 cows, while the federal program only covers some farms with more than 700 cows.[FN 19] In addition, New York's CAFO program is in the process of being updated to be consistent with the new federal regulations but does not state when it will be complete. The final WIP should provide the final date for the completion of CAFO program updates and should indicate what if any changes will be made and how those changes will contribute to decreases in pollutant discharges. It should also detail how and with what funds additional staff will be hired. New York should also provide a timeline or set of goals for updating, renewing, or reissuing existing permits that contain both the Bay TMDL allocations and the federal regulations.

Stormwater

The stormwater section lists guidance for stormwater inspections and for local delegated authorities but fails to provide specific information about how the guidance, laws, and regulations will be applied to achieve reductions in pollutants from stormwater. The section refers to the state manuals but does not explain the applicable standards or otherwise

demonstrate how stormwater management will be improved.

In the final WIP, New York should take the next step beyond simply listing its authorities and include specific details about how it intends to apply these authorities.

Air Deposition

The draft WIP includes a discussion of state authorities to address air deposition of nitrogen, including the adoption of year-round NO_x limits from power plants and other stationary sources and California's low-emission-vehicle standards. The WIP does not indicate whether these authorities are sufficient to achieve the necessary pollutant reductions. The final WIP should include a more detailed analysis of the gaps in New York's air program, including what additional legislative authorities may be needed to achieve greater reductions from air sources and what funding or personnel resources are needed for this sector and how these gaps may be filled.

[FN17] U.S. E.P.A., "Summary: EPA Evaluation of New York Draft Watershed Implementation Plan" (Sept. 22, 2010) (on file with Yee Huang).

[FN 18] New York State Department of Environmental Conservation, Chesapeake Bay Nitrogen, Phosphorus and Sediment Total Maximum Daily Loads: New York Draft Phase I Watershed Implementation Plan 17 & 22 (Sept. 1, 2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/NYDraftPHIWIP.pdf.

[FN 19] New York's Draft Phase I WIP at 13.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0191.1.001.007

Author Name: Smith Robert

Organization: Farm Credit East, ACA

We urge you to adopt the model refinements recommended by the New York State Department of Environmental Conservation in their Draft Phase I Watershed Implementation Plan. These model refinements reflect the environmental accomplishments that New York State farmers have already attained, and represent a more realistic and attainable objective for water quality improvement all stakeholders in the watershed seek to achieve.

Response

EPA worked closely with New York as it developed its final Phase I WIP and the associated allocations in the final TMDL. In response to New York's concerns regarding the fairness of how EPA distributed the Baywide allocations to jurisdictions, EPA increased New York's nitrogen and phosphorus allocations and approved New York's exchange of some phosphorus for nitrogen. New York still did not meet its target allocations, however, despite these increased allocations and nutrient exchanges and despite

the fact that NY's final input deck achieved significant additional reductions in both the agricultural and wastewater sectors compared to the draft WIP. EPA has closed the gap with an aggregate WLA backstop that further reduced New York's wastewater load, which is further described in Section 8 of the final TMDL.

New York's final Phase I WIP showed significant improvement in the agriculture and stormwater sectors, and there are no backstop actions against these sectors applied to New York in the final TMDL.

It should be noted that New York did not propose model refinements in its final Phase I WIP.

Comment ID 0211.1.001.018

Author Name: McCarthy R.

Organization: Town of Erwin, New York

WHEREAS, each and every day farmers across New York work to improve their environmental sustainability, recognizing that appropriate natural resource management is critical to maintaining success of their businesses for future generations; supporting farmers in these endeavors is how government can best aid agriculture in protecting water quality;

WHEREAS, the Town of Erwin supports state and locally driven collaborative initiatives which effectively use federal environmental funds and specifically address areas of high environmental risk and employ a farm-specific focus, such as NYS Department of Agriculture and Market's Agricultural Environmental Management Program; and

WHEREAS, the Town of Erwin supports the New York State Department of Environmental Conservation recommendation in its draft Phase I Watershed Implementation Plan which recognizes the environmental stewardship of New York farmers and inherent inequality of the current EPA proposal;

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0219.1.001.007

Author Name: Cary Russell

Organization: Madison County, New York

WHEREAS, we support state and locally driven collaborative initiatives which effectively use federal environmental funds and specifically address areas of high environmental risk and employ a farm-specific focus, such as NYS Department of Agriculture and Market's Agricultural Environmental Management Program; and

WHEREAS, we support NYS Department of Environmental Conservation's recommendations in their draft Phase I Watershed Implementation Plan which recognizes the environmental stewardship of New York farmers and inherent inequality of the current EPA proposal;

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0224.1.001.002

Author Name: Fiala Barbara

Organization: Broome County Executive's Office

We support the position of the NYS Department of Environmental Conservation and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan.

Response

See response to Comment No. 0287-cp.001.003

Comment ID 0224.1.001.005

Author Name: Fiala Barbara

Organization: Broome County Executive's Office

New York State has put forth a concerted effort to devise a draft Watershed Implementation Plan that sets forth goals to achieve realistic and attainable results, yet still fell short of the EPA's desired reductions. Due to the already low pollutant levels in New York, these required reductions cannot be met, and, therefore, the extreme expense associated with the mandates will be fruitless. Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0224.1.001.006

Author Name: Fiala Barbara

Organization: Broome County Executive's Office

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order to move forward in confidence, the TMDL load allocations need to be viewed as equitable and attainable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, Broome County stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay in a manner that is not an unbearable burden to the struggling communities of New York State.

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0258.1.001.001

Author Name: Wells Wayne

Organization: Cameron Committee for a Safe Environment (CCSE)

I live in Cameron NY on a tributary to the Canisteo River in the upper Chesapeake Bay watershed and downstream from the Dickson waste disposal "farm" Corp. The Dicksons use about 1,000 acres in Steuben county in three towns under the names Leo Dickson & Sons Inc. and Dickson Environmental Services Inc. Since 1986, when the Dicksons began using farm land for the disposal of industrial sludges, our community has seen a degradation (at times severe) of our air and water quality.

NYDEC permits land application of wastes for the Dicksons. The Dickson Corp. is the largest private bio-solid land applicator in NY state and from the inception of their sludge business, which began with the construction of a six million gallon lagoon, they have NOT been in compliance with good farming practices or NYDEC's own regulatory directives.

I organized neighbors under the Cameron Committee for a Safe Environment (CCSE) to force compliance of the Dickson operation to DEC regulations with limited success. Our documentation of Dickson violations culminated in the closing down of their lagoon in 1993 and led to a few token fines. Air and water pollution from their waste application practices that include the failure to use any set-back buffers from roadside ditches, continued with ongoing and new documentation being submitted to NYDEC region 8 as late as this Spring and Summer regarding severe field erosion.

I noted from the NYDEC WIP Draft document dated 9/1/10 pg.15 this statement: "....., must adhere to stringent setbacks for nutrient applications in farmlands adjacent to New York's waters, must control erosion on crop fields and must make nutrient applications in accordance with science-based nutrient management plans." Here the EPA might wish to see the Dickson Corp. annual reports showing phosphorous loadings. Further on the Draft reads: "It is these stringent

technical standards and the CAFO program's proven rate of implementation and enforcement that protects water quality. Professional management of waste at these facilities is critical to protection of water quality. That professional management is ensured by the New York CAFO permit program." the following under CAFO program highlights: "New York requires erosion control to "tolerable Soil Loss" on all CAFO crop land," and the stand alone statement: "High level of regulatory oversight" ending "CAFO program highlights" from NY state Draft WIP. These statements imply a nonexistent reality with the past history of dealings and observations of the Dickson Corp. & NYDEC regulatory enforcement since 1986 to the present. The pattern of violations by the Dickson Corp. have ranged from the sloppy to willful disregard of DEC health and safety provisions in handling and applying of bio-solid wastes and municipal sewer sludges let alone no visible efforts to date for controlling erosion through "best farming practices" in spite of New York's Agricultural Environmental Management (AEM) or Co-Operative Extension programs.

It might be interesting to the Commission that the period 1995-2006 the Dickson Corp. had received \$797,619.00 in farm subsidies including conservation subsidies, over double any other local farm operation as a way to gage the scale of their business relative to surrounding farm operations.

Relevant to the issue of cleanup efforts for the Chesapeake Bay is the past unwillingness of the NYDEC or effective impacts from County Co-operative Extension and AEM programs to bring bad actors such as the Dicksons into compliance with the aims of preventing ongoing erosion and runoff that is responsible for excessive phosphorous and other contaminant containing sediments from flowing into the streams and rivers each time we get heavy rains or snow melt during Spring runoff. This in spite of the CCSEs repeated efforts to bring this to the attention of DEC with credible documentation for 24years.

Response

EPA will hold each jurisdiction accountable for implementing the practices and programs as identified in its final Phase I WIP and provide sufficient reasonable assurance that nonpoint source reductions will be achieved and maintained through credible and "enforceable or otherwise binding" strategies.

In order to ensure reasonable assurance, EPA is committing to enhanced oversight actions in those jurisdictions whose final Phase I WIP did not fully meet EPA's expectations. As a result of this enhanced oversight, EPA will consider future backstops and may take additional federal actions consistent with its December 29, 2009 letter should the jurisdictions not demonstrate sufficient progress in their Phase II WIPs. EPA also is committed to maintaining its ongoing oversight for the Chesapeake Bay jurisdictions, with the goal of ensuring that the jurisdictions successfully implement their final Phase I WIPs and 2-year milestone commitments. EPA is prepared to take necessary federal actions – such as permit objections, conditioning of federal funds, and targeted compliance and enforcement actions – should these goals not be met.

Comment ID 0266.1.001.017

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, we support NYS Department of Environmental Conservation's recommendations in their draft Phase 1 Watershed Implementation Plan which recognizes the environmental stewardship of communities and New York farmers and the inherent inequality of the current EPA proposal.

Response

See response to Comment No. 0287-cp.001.003

Comment ID 0267.1.001.025

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

Local communities in New York are willing to go beyond existing regulatory and nonregulatory water protection efforts. In its evaluation of New York's draft Phase 1 WIP, EPA points out the need for more information on how enhancements to current water quality programs will be implemented.[FN 12] Responding to this, we point out that EPA should recognize the contribution of these local initiatives in its TMDL implementation strategy for New York and, more practically, capitalize on these local initiatives by directing grant resources towards enhancing their capacity. The following sections describe these initiatives and our related recommendations in greater detail.

A. Road Drainage in Rural Areas

The extensive network of rural roads and highways in the New York portion of the watershed makes roadside ditches a major pollutant pathway. New York municipalities have approached this challenge as an opportunity to abate nutrient and sediment loading in stormwater runoff in innovative ways.[FN 13] For example, although it is not a regulated MS4, the Town of Danby voluntarily adopted a stormwater ordinance that incorporates New York State's Phase II Stormwater regulations to address erosion and sedimentation. Additionally, the Town created a special task force to explore the development of an enhanced drainage management scheme to reduce pollutant loading in stormwater runoff-this scheme could serve as a model for similar headwater communities.

Working with the Cornell Law School Water Law Clinic, the neighboring towns of Caroline and Newfield, the Tompkins County Soil and Water Conservation District and the Upper Susquehanna Coalition, Danby proposes to develop and implement practical drainage management practices and regulations that will retard nutrient and sediment delivery to local water resources and the Chesapeake Bay while minimizing financial hardship. In targeting pollution sources that are unique to the hilly and flood-prone landscape of rural New York, the enhanced drainage management scheme will focus on: (1) road ditching practices, especially those on the region's many unpaved town roads, logging roads, and other access and back roads; (2) impervious surfaces; and (3) stormwater controls that focus on retaining the natural features of the watershed hydrology.

In evaluating New York's draft Phase I WIP, EPA observes that the state could "consider more controls on state and county roads to reduce loads from impervious surfaces outside MS4 communities." [FN 14] Innovative and aggressive efforts such as the Town of Danby's proposed enhanced drainage management scheme directly respond to this need.

Recommendation:

- Although roads and ditches play a central role in pollutant transport and delivery, they are often neglected in conventional stormwater management programs. To help New York fill this gap, EPA should provide support to local initiatives such as the enhanced drainage management scheme proposed by the Town of Danby in its final Bay TMDL implementation strategy.

B. Urban Stormwater Management New York communities are also willing to do more to reduce pollutant loading from urban land, using both enhanced regulations and additional incentive-based methods. As an example, the Otsego County Soil and Water Conservation District and the Cornell Law School Water Law Clinic are currently working on a model stormwater ordinance for the City of Oneonta's consideration. The ordinance is intended to create a comprehensive green infrastructure program that would control runoff from the city's impervious surfaces through a combination of targeted stormwater projects, regulatory requirements for both new and existing development, and retrofit incentives.

To retrofit its public infrastructure, Oneonta is prepared to consider forming an interdepartmental task force that would site a stormwater retrofit demonstration project, write new specifications for future street reconstruction and other projects, and estimate annual spending increases for green infrastructure construction and maintenance. As incentives for green infrastructure such as green roofs and urban gardens, Oneonta is also prepared to consider property tax abatements, grants, or cost-share agreements.

Additionally, Oneonta is prepared to consider regulations that would limit runoff from new development, require rooftop or rain barrel retention for all buildings, require landscaping or permeable pavement on commercial and multi-family residential complex driveways and parking lots, as well as vacant lots, and charge a stormwater fee upon non-compliance. These are "strong, unqualified, enforceable performance standards" that go beyond "referencing a manual," as EPA has said in its evaluation of New York's draft Phase I WIP.[FN 15] A model urban green infrastructure program such as that being pursued by the City of Oneonta can be replicated in other areas of the watershed to reduce nitrogen loading from urban land.

Recommendation:

- Because reducing pollutant loading from urban land is an important gap-filling strategy for New York, Chesapeake Bay Program resources should be directed towards promoting the program.

[FN 12] Supra note 12.

[FN 13] See WIP I at 44.

[FN 14] Supra note 12 at 2.

[FN 15] See supra note 8 at 2.

Response

EPA commends New York for coming up with implementation strategies to reduce pollutant loadings from stormwater and urban

lands. The WIPs are part of the accountability framework outlined in the Chesapeake Bay Protection and Restoration Executive Order 13508 and EPA does not have authority to draft the WIPs on behalf of the jurisdictions or mandate specific details of the WIPs developed by each jurisdiction. The WIP helps ensure implementation of the Chesapeake Bay TMDL but is not an approvable part of the TMDL; therefore, EPA cannot require jurisdictions to implement practices that are outside of EPA's regulatory authority. EPA encourages New York to replicate programs such as those referenced in this comment to meet its wasteload allocations under the Chesapeake Bay TMDL.

Comment ID 0267.1.001.030

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

Successful implementation of the Bay TMDL will also require enhancement of legal understanding among community decision-makers, especially in rural areas where it may be difficult to gain access to useful information. To fill this gap, the Cornell Law School's Water Law Clinic is pursuing a project, called "Follow the Water," to compile and explain the legal framework surrounding water quantity and quality issues and to facilitate information exchange amongst local communities using an online blog.

By presenting the legal framework of federal, state, and local water law in a layperson-accessible format, the blog will provide local governments the legal tools they need to amend or strengthen their stormwater regulations and also to protect local wetlands as required by the Clean Water Act and the New York State Articles of Environmental Conservation, which provide for stricter wetland protections than does the Clean Water Act itself. Additionally, the blog will allow communities to share their programs, thereby helping other local governments enhance their own stormwater regulations, local wetland ordinances, stream corridor ordinances, and floodplain protective measures.

While the main focus of the Bay TMDL is water quality, the high risk of flash flooding in the New York portion of the watershed requires a strategy that also accounts for water quantity challenges, because the volume and energy of such floods can cause heavy loads of sediment and other pollutants to move quickly into streams. One avenue is for local communities to enact permit systems and other regulations to prevent and mitigate the impacts of flooding on local water resources. To promote this, the Clinic is working to explore the authority of local governments to regulate land use and development in flood plains by discussing existing approaches and considering new ones. We will also provide an online forum for communities to share successful implementation strategies, to express concerns and problems, and to exchange water policy information.

Recognizing that education is a critical tool in the protection of water resources at the local level, the Clinic also seeks to strengthen understanding of water issues by individual community members. Following programs such as Project WET, which demonstrates the effectiveness of strengthening community understanding of water issues through high schools, the Clinic is developing a curriculum for high school students. The curriculum addresses water pollution and protection issues within their legal framework. This complements other work with communities by the Clinic that is designed to strengthen capacities to protect water resources at the local level.

Response

EPA agrees that education and public outreach is a useful tool in water quality initiatives and implementation of the Chesapeake Bay TMDL.

Comment ID 0275.1.001.002

Author Name: LaClair André

Organization: Broome County Environmental Management Council (BCEMC), Binghamton, New York

The BCEMC supports the position and approach of the New York State Department of Environmental Conservation and their water quality partners, particularly New York's Soil and Water Conservation Districts, as presented in the New York draft Phase I Watershed Implementation Plan (NYWIP) submitted to the EPA.

Response

See response to Comment No. 0228.1.001.002

Comment ID 0275.1.001.004

Author Name: LaClair André

Organization: Broome County Environmental Management Council (BCEMC), Binghamton, New York

Through concerted and coordinated efforts, New York State devised a draft WIP to meet the EPA mandate using the existing Tributary Strategy as the springboard to achieve realistic and attainable results for nutrient and sediment reductions. However, this fell short of the EPA's desired reductions. Rather than impose penalty for New York's achievements, the EPA should use New York as a models for other Bay states.

Response

See response to Comment No. 0287-cp.001.003

Comment ID 0279-cp.001.001

Author Name: Comment Anonymous

Organization:

NY already has implemented effective pollution controls and has the cleanest water in the CBW.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0287-cp.001.003

Author Name: Ristow Aaron

Organization: Upper Susquehanna Coalition

3. The Department of Environmental Conservation developed a reasonable WIP for BMP implementation that considers budget limitations for NY. The draft WIP is based on realistic estimates of technical and financial support that may be available for ag BMPs through 2025.

Response

EPA had an expectation for all states that their WIPs identify existing tools or recommend new tools (like funding) to implement the needed controls to achieve the loads allocated to the states. EPA found major deficiencies in the NY plan because it did not identify adequate tools to achieve the allocations. For example, a fundamental need of the plan is to identify controls that will achieve the loads for that states established by EPA. Not only did the draft NY plan did not achieve this basic requirement, the draft NY plan had point source controls that were much less than any other state in the watershed. While the final plan is improved, some deficiencies exist. EPAs determination on the final NY plan can be found in Section 8.

Comment ID 0354-cp.001.001

Author Name: Fickbohm Scott

Organization: Otsego County Soil and Water Conservation District

Dear Administrator Jackson,

The comments of the Otsego County Soil and Water Conservation District come in the form of two suggestions; we urge you redouble your efforts to establish a vigorous partnership with New York stakeholders in the further development of the TMDL's for New York and accept the WIP as proposed by the State of New York as realistic and achievable plan for our portion of the watershed.

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0361.1.001.004

Author Name: Weidenbach Richard

Organization: Delaware County Soil and Water Conservation District (SWCD), New York

In closing, the waters leaving New York State via the Susquehanna River are clean; so clean that if every State's waters were as clean, the Chesapeake Bay would not be impaired. The Upper Susquehanna Coalition of Conservation Districts has collaborated with the New York State DEC in developing a realistic Watershed Implementation Plan. This plan will achieve attainable and realistic reductions from agricultural sources which are contrary to EPA's subjective reductions which will put farms out of business and cause irreversible harm to New York State's agricultural economy.

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0399.001.003

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, the New York State WIP as dictated by EPA allocations will impose new limits on the Waste Water Treatment Plants ("WWTP") within the watershed

Response

See response to Comment No. 0287-cp.001.003

Comment ID 0399.001.016

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, the Town of Erwin supports the New York State Department of Environmental Conservation recommendation in its draft Phase I Watershed Implementation Plan which recognizes the environmental stewardship of New York farmers and inherent inequality of the current EPA proposal

Response

See response to Comment No. 0287-cp.001.003

Comment ID 0399.001.019

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

RESOLVED, that the Town of Erwin requires EPA to adapt the proposed TMDL limits to address the concerns raised by New York State Department of Environmental Conservation, Steuben County, Steuben County Soil and Water Conservation District and Town of Erwin, and be it further

RESOLVED, the Clerk of the Town of Erwin shall forward a copy of this resolution to Judith Enck, Administrator, Region 2, U.S. Environmental Protection Agency, 290 Broadway, New York, NY 10007-1866, and to the Water Docket, Docket ID: EPA-R03-OW-2010-0736, Environmental Protection Agency, Mail code : 2822T, 1200 Pennsylvania Ave NW, Washington, DC 20460.

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0439.1.001.007

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

NYACD is asking that EPA accept New York's WIP without the backstops. New York's WIP is realistic, and takes into account New York's proactive programs that have been in place for more than 10 years, and are proving to be effective based on water quality, from river water tested in Towanda, PA. The EPA mandated TMDL allocation and the determination of whether the state meets the requirements are solely based on the Bay Watershed Model and not on real water quality data.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0454-cp.001.002

Author Name: Hargrave T.

Organization: Cameron Committee for a Safe Environment (CCSE)

The CCSE has urged the NYSDEC to enforce existing regulations concerning this operation but so far we have had very little success. The NYDEC should end all biosolids applications by Leo Dickson and Sons on any of the fields that are already overloaded with phosphorus, by doing so it would help the NYSDEC achieve their WIP goals.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0466.1.001.007

Author Name: Suarez Julie

Organization: New York Farm Bureau (NYFB)

EPA Should Accept NY's Watershed Implementation Plan

NYFB urges EPA to accept DEC's WIP which is an aggressive, achievable, stakeholder driven plan which provides adequate assurances of New York's ability to achieve stated nutrient reductions. Particularly, EPA should adopt the model refinements recommended by the DEC in their draft WIP which reflect the real-world practice and impact of New York's BMPs. Through experience and academic research, New York's BMPs symbiotically work with the seasonality, soil types and topography that is unique to New York in order to maximize environmental effectiveness.

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0466.1.001.008

Author Name: Suarez Julie

Organization: New York Farm Bureau (NYFB)

It is critical that when discussing nutrient management planning, EPA consider geographic and climatic differences within the watershed. This is particularly true when considering restrictions on winter spreading and the establishment of cover crops. There is a difference, for example, in the number of growing degree days in Maryland and New York. This creates a situation where New York farms would feel a greater impact on their operations because of restricted winter manure spreading. It also means New York farms have a more limited time between harvest and winter weather in which to plant cover crops. Rather than establish specific BMPs in regulations, each state should have the flexibility to focus on the installation of BMPs that are geographically and climatically practical and appropriate.

For this reason, New York Farm Bureau strongly opposes the banning of winter manure spreading. Small farms cannot

afford the immense capital cost of installing manure storages. It is much more cost effective for both farms and taxpayers to instead utilize science-based nutrient management planning to identify appropriate, low-risk fields for winter manure spreading.

Response

On May 12 2010, the EPA published guidance for federal land management in the Chesapeake Bay watershed under Section 502 of the Chesapeake Bay Executive Order. EPA's objective in developing the guidance is to provide the information that will allow federal agencies to lead by their example. The guidance provides information and data on appropriate proven and cost-effective tools and practices for implementation on federal lands and at federal facilities. EPA's 502 technical guidance addresses these concerns. EPA asserts that the winter application of manure is a waste disposal method. Continued winter spreading will not meet the objectives of optimizing yields and protect streams, rivers, ponds, and groundwater. Furthermore, the application of manure on cover crops negates the nutrient removal benefit derived from their application according to the Chesapeake Bay Program as it relates to nutrient reductions calculated by the Watershed Model. Applying manure to land where there are no growing crops (only residue) is not a long term solution to manure management. A study done in New York, by Lewis and Makarewicz (2009), reported significant decreases in winter concentrations of TP, soluble P, TKN, and NO₃-N following cessation of winter dairy manure application to cropland.

Comment ID 0515.1.001.015

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Like the TMDL, the New York draft WIP-I does not identify any funding sources for carrying it out (perhaps the NYS-DEC should "be bold" in its final WIP-I and call on federal government to provide at least 80% of the cost of restoring the Bay in line with the Chesapeake Bay Executive Council's 2005 financing proposal (discussed below) as well as President Obama's declaration of the Bay as a "national treasure"?). Neither the TMDL nor the WIPs can self-implement.

We support NYS-DEC's call for modeling corrections and improvements as outlined in the New York draft WIP-I, and we call on the EPA to expressly and fully address each and every comment and criticism by NYS-DEC of the Bay watershed modeling and the TMDL process followed by the EPA.

Nevertheless, we are concerned that the New York draft WIP-I which, as observed in our October 29, 2010 letter (on-line Comment Docket Comment Attachment #145.1), has not yet entered a public comment period, "unlevels the playing field" and sacrifices the economic vitality of our Binghamton-Johnson City Joint Sewage Treatment Facilities' service area by requiring significantly enhanced denitrification of us that is not required by NYS-DEC of other significant New York WWTPs in Bay Watershed, so we support the EPA's criticism of the New York draft WIP-I to the extent that the EPA objects to the NYS-DEC's proposed assignment of widely varying nitrogen discharge limits to WWTPs and, instead, calls on New York to maintain a "level playing field". In the absence of specific climate or operational differences, or disproportionate local contribution to degradation of the Bay, all New York significant WWTPs of 0.5

MGD or larger should be regulated to the same uniform standard so as not to impose an inequitable financial burden on certain "target" communities (for example, those served by larger wastewater treatment facilities) without requiring similar participation by the same sectors in other Bay watershed communities. Nevertheless, the EPA should not blindly require NYS-DEC to force a "one size fits all" set of requirements uniformly on all Bay watershed territories within NY's jurisdiction (i.e., certain all-rural counties can better participate/contribute as to agriculture/open-space BMPs, while counties with urban lands can contribute via WWTPs/MS4s/CSOs), so we do support that some flexibility should be afforded to state governments for good cause to vary the specifics of their implementation plans based on differences in the characteristics of communities and counties, as long as the New York WIP and NYS-DEC administration and/or enforcement of an EPA-mandated TMDL are not carried-out in a way that places an excessive burden on some sectors and/or communities without fairly distributing the responsibility for meeting the goals to be achieved. To do otherwise creates financial and practical disincentives for industries and residents alike to locate or remain in the more stringently-regulated communities and, conversely, incentivizes siting decisions by industries into less stringently-regulated communities where, for example, their wastewater discharges would not be as well-treated to the high water quality standards necessary to meet either the TMDL goal or the Bay's needs.

We also believe that the NYS-DEC has unrealistic expectations for what our Facilities' denitrification upgrade - contracted by the Facilities' Owners to meet an average monthly maximum 6 mg/L effluent TN standard - will produce. Our "real world" experience shows us that meeting the contracted-for standard (which is what the Permit requires) is not without significant challenges, especially given seasonal variations in influent temperature as outlined above.

Because the draft WIP-I has not been opened for public comment yet, nor has a corresponding SEQR process begun, the EPA is - in essence - requiring New York to violate its own environmental protection laws by compressing the time for development and submission of the WIP-I to the EPA before the TMDL is finalized.

EPA's commentary on New York's draft WIP-I to the effect that "reasonable assurance" is lacking for the performance and effectiveness of New York's WIP-I efforts rings hollow. New York's exemplary environmental stewardship and non-impaired WQ at the Pennsylvania border should be given full consideration. New York's historical performance and "good deeds" with respect to environmental matters should count for far more than the mere words contained in a draft document. The NYS-DEC has consistently pursued high WQ standards and - as we know from first-hand experience - has not hesitated to pursue criminal complaints, consent orders, and other enforcement means to preserve and protect our local WQ. As mentioned above, the NYS-DEC has taken the lead in updating its stormwater management "toolbox" and MS4 regulations, including tough new mandated engineering requirements in the planning, implementation and operation stages. In sum, New York's overall course of conduct with respect to the Bay watershed and other areas of the state should afford the EPA more than adequate assurance that New York will continue to meet its WQ obligations to the Bay watershed.

Response

Please refer to response to comment 0228.1.001.002. EPA's evaluation of the final WIP can be found in Section 8 of the final TMDL report.

Comment ID 0600-cp.001.001

Author Name: Herrala G.

Organization:

New York's farm communities in the Bay watershed have serious concerns that U.S. Environmental Protection Agency Region 3 (USEPA R3) has not accurately accounted for all pollutant reduction factors which are distinct and unique to New York. Unlike other Bay watershed states, New York's small portion of the Chesapeake Bay watershed is characterized by low population growth, low intensity agriculture, forest and high water quality. This is significant because the brunt of any nutrient load allocation requirement will fall squarely on our small family farms in the Bay watershed region in the absence of any other significant industry or population centers to satisfy USEPA R3 pollutant reduction targets.

Since 2004, the NYS DEC, in partnership with the New York State Department of Agriculture and Markets, has been implementing a practical, programmatic, state-wide approach to nutrient and sediment reduction which has resulted in marked improvements to the Susquehanna River Basin region and, thereby, the Chesapeake Bay watershed. These existing state water quality and agricultural environmental management programs have established practices and standards which exceed federal minimum requirements and pre-date any EPA mandate.

For these reasons, please revise New York's Chesapeake Bay Total Maximum Daily Load (TMDL) allocation to a realistic and adopt the model refinements recommended by NYS DEC in their Draft Phase I Watershed Implementation Plan.

Response

EPA worked closely with New York as it developed its final Phase I WIP and the associated allocations in the final TMDL. In response to New York's concerns regarding the fairness of how EPA distributed the Baywide allocations to jurisdictions, EPA worked closely with New York as it developed its final Phase I WIP and the associated allocations in the final TMDL. In response to New York's concerns regarding the fairness of how EPA distributed the Baywide allocations to jurisdictions, EPA increased New York's nitrogen and phosphorus allocations and approved New York's exchange of some phosphorus for nitrogen. New York still did not meet its target allocations, however, despite these increased allocations and nutrient exchanges and despite the fact that NY's final input deck achieved significant additional reductions in both the agricultural and wastewater sectors compared to the draft WIP. EPA has closed the gap with an aggregate WLA backstop that further reduced New York's wastewater load, which is further described in Section 8 of the final TMDL.

New York's final Phase I WIP showed significant improvement in the agriculture sector, and there are no backstop actions against the agricultural sector applied to New York in the final TMDL.

It should be noted that New York did not propose model refinements in its final Phase I WIP.

Comment ID 0634.001.001

Author Name: Bassler Richard

Organization: Town of Fenton, New York

The Town of Fenton recognizes the importance of a healthy and thriving Chesapeake Bay and commends efforts to restore the Bay ecosystem. However, we feel that the EPA's draft Total Maximum Daily Load (TMDL) is inequitable, unattainable, and threatens to be punitive to our State and our local economies. We support the position of the NYS Department of Environmental Conservation and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0634.001.005

Author Name: Bassler Richard

Organization: Town of Fenton, New York

New York State has put forth a concerted effort to devise a draft Watershed Implementation Plan that sets forth goals to achieve realistic and attainable results, yet still has fallen short of the EPA's desired reductions. Due to the already low pollutant levels in New York these required reductions cannot be met, and therefore, the extreme expense associated with the mandates will be fruitless. Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order to move forward in confidence, the TMDL load allocations need to be viewed as equitable, attainable and affordable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, Town of Fenton stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay in a manner that is not an unbearable burden on New York State communities.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0676-cp.001.001

Author Name: Moore P.

Organization:

As a New York livestock producer within the Chesapeake Bay watershed, I urge the Environmental Protection Agency (EPA) to revise New York's Chesapeake Bay Total Maximum Daily Load (TMDL) allocation to an attainable and realistic standard and to accept the NYS Department of Environmental Conservation's (NYS DEC) Watershed Implementation Plan (WIP).

Farmers and ag support agencies (including NRCS, the Upper Susquehanna Coalition, Soil & Water Districts, Graze NY and NYS-GLCI) have worked pro-actively to address water quality concerns in our watershed. The quality of water leaving the NY portion of the Chesapeake Bay Watershed clearly demonstrates the success of these efforts. Ours is the cleanest water that makes its way into the Chesapeake Bay, and New Yorkers should not be penalized for their diligence and having already reduced nitrogen, phosphorus and sediment in the watershed when other states are struggling to achieve our level of water quality.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0701.001.002

Author Name: Barnes Walter

Organization: Jackson Township, Tioga County, PA and Partner, Maple Knoll Farm

Representing Maple Knoll Farm, a partnership between my son and myself, we milk 200 cows on a modern day dairy farm which lies in Steuben County, New York and Tioga County, Pennsylvania. We farm 700 acres between both states. The land we farm is both owned and rented. The proposed buffer requirement of 150' from any water source would restrict us from planting 37.4 acres of cropland. We live on a hilltop with few creeks or streams near the farm. Essentially this is limiting how we can farm ground that does not run into a creek or stream. And it is this ground that pays us to farm, not income off the farm.

Response

Each jurisdiction is responsible for developing a WIP and identifying regulations, BMPs or other implementation strategies within its WIP for meeting the pollution allocations under the TMDL. The WIP helps ensure implementation of the Chesapeake Bay TMDL but is not an approvable part of the TMDL; therefore, EPA cannot require jurisdictions to implement practices, such as buffers, that are outside of EPA's regulatory authority in order to meet allocations under the TMDL. The jurisdiction is responsible for implementation strategies, such as buffers, in order to meet its allocations under the TMDL.

Comment ID 0720.001.001

Author Name: Turna Margaret

Organization: Town of Chenango, Binghamton, New York

The Town of Chenango recognizes the importance of a healthy and thriving Chesapeake Bay and commends efforts to restore the Bay ecosystem. However, we feel that the EPA's draft Total Maximum Daily Load (TMDL) is inequitable, unattainable, and threatens to be punitive to our State and our local economies. We support the position of the NYS Department of Environmental Conservation and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan .

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0720.001.004

Author Name: Turna Margaret

Organization: Town of Chenango, Binghamton, New York

New York State has put forth a concerted effort to devise a draft Watershed Implementation Plan that sets forth goals to achieve realistic and attainable results, yet still has fallen short of the EPA's desired reductions. Due to the already low pollutant levels in New York these required reductions cannot be met, and therefore, the extreme expense associated with the mandates will be fruitless . Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order to move forward in confidence, the TMDL load allocations need to be viewed as equitable, attainable and affordable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, The Town of Chenango stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay in a manner that is not an unbearable burden on New York State communities .

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0724.001.003

Author Name: Bernardo John

Organization: Town of Union, Endwell, New York

Furthermore, we support the position of the NYS Department of Environmental Conservation and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0724.001.006

Author Name: Bernardo John

Organization: Town of Union, Endwell, New York

New York State has put forth a concerted effort to devise a draft water implementation plan that sets forth goals to achieve realistic and attainable results, yet still fell short of the EPA's desired reductions . If due to the already low pollutant levels in New York, these required reductions cannot be met, the extreme expense associated with the mandates will be fruitless . Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order for to move forward in confidence, the TMDL load allocations need to be viewed as equitable, attainable and affordable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, the Town of Union stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay, yet does not come at the expense of the livelihood of New York communities.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0728.001.007

Author Name: Proto Frank

Organization: Tompkins County Water Resources Council

we support NYS Department of Environmental Conservation's recommendations in their draft Phase I Watershed Implementation Plan which recognizes the environmental stewardship of New York farmers and inherent inequality of the current EPA proposal,

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0729.001.001

Author Name: Hannon Dennis

Organization: Village of Johnson City, Johnson City, New York

The Village of Johnson City recognizes the importance of a healthy and thriving Chesapeake Bay and commends efforts to restore the Bay ecosystem . However, we feel that the EPA's draft Total Maximum Daily Load (TMDL) is inequitable, unattainable, and threatens to be punitive to our State and our local economies . Furthermore, we support the position of the NYS Department of Environmental Conservation and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0729.001.005

Author Name: Hannon Dennis

Organization: Village of Johnson City, Johnson City, New York

New York State has put forth a concerted effort to devise a draft water implementation plan that sets forth goals to achieve realistic and attainable results, yet still fell short of the EPA's desired reductions . If due to the already low pollutant levels in New York, these required reductions cannot be met, the extreme expense associated with the mandates will be fruitless . Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay

watershed . In order for to move forward in confidence, the TMDL load allocations need to be viewed as equitable, attainable and affordable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, the Village of Johnson City stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay, yet does not come at the expense of the livelihood of New York communities.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0732.001.010

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The comments below have been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Comments from the Chesapeake Bay Foundation on New York's Draft Watershed Implementation Plan November 4, 2010

On behalf of the Chesapeake Bay Foundation's (CBF) more than 200,000 members please this letter as formal comment on the Chesapeake Bay Nitrogen, Phosphorus and Sediment Maximum Daily Loads, New York Draft Phase 1 Watershed Implementation Plan (WIP) prepared by the New York State Department of Environmental Conservation (DEC). Also, incorporate by reference the comments submitted by the Chesapeake Bay Foundation, Cho Clean Water Coalition, and Rebecca Hanmer on the Chesapeake Bay TMDL, Docket no. E R03-OW-2010-0736.

We very much appreciate the dedication of the many state agency staff that contributed to t draft WIP. We further thank the state for the opportunity to comment upon this critical wo Unfortunately, the draft WIP falls far short, not only of achieving the necessary load alloc, for nitrogen, phosphorus, and sediment called for in the draft Chesapeake Bay Total Maxin Daily Load (TMDL), but also in providing the necessary reasonable assurance that the prol policies, and other necessary actions will be put in place by 2025.

As you know, the process of developing the Bay-wide TMDL actually began over a decade with a series of federal judicial consent decrees and settlement agreements over impaired listings for many watershed states . See American Canoe v. EPA, 54 F. Supp. 2d 621 (E.D. 1999). On June 28, 2000, the governors of Virginia, Maryland, and Pennsylvania, the chai the Chesapeake Bay Commission, and the Mayor of the District of Columbia responded to various decrees and agreements by signing, with the EPA Administrator, Carol Browner, the Chesapeake 2000 agreement which, among other things, committed to reduce nitrogen, phosphorus, and sediment sufficiently to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. In the fall of that same year, Governor Pataki of

New York a formal agreement to work with the other jurisdictions to "achieve the nutrient and sediment reduction targets . . . to achieve the goals of a clean Chesapeake Bay by 2010."

In December 2003, the EPA, New York and the other Bay jurisdictions agreed to the nitrogen phosphorus and sediment allocations that became the basis for "tributary strategies," designed to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. New York its own tributary strategy in 2006. [FN1] There, New York observed that "to meet Bay restoration goals, a substantial amount of nutrient reduction from New York is necessary." (p. 18) They noted the waste load and load allocations assigned by the Chesapeake Bay Program and believed that its tributary strategy was a practical means to meet those allocations. (p. 17) However, the Bay was not de-listed and the failure to achieve that goal triggered the need to develop the TMDL - a process in which New York has been a full participant.

New York has raised concerns about the fairness of the TMDL allocation process. We find these concerns to be unjustified. The TMDL load allocations were equitably and fairly distributed to the Bay jurisdictions, based on the following 3 principles, paraphrased here: 1) the allocated loads should result in attainment of all applicable tidal water quality standards; 2) major basins that contribute the most to the water quality problems must do the most to resolve those problems; and 3) all tracked and reported reductions are credited toward achieving the assigned loads.

In its WIP, DEC complains that "...New York makes up about 10% of the total Bay watershed and receives less than 5% of the total nitrogen allocation to the states. Whereas, Maryland, which makes up about 14% of the total Bay watershed, receives more than 20% of the available nitrogen allocation." (p. 5) But, when you look at the reductions that must be achieved, New York is doing disproportionately less than most other jurisdictions. Using the same comparison of New York and Maryland, New York is responsible for roughly 4% of nitrogen load reductions from a 2009 baseline, whereas Maryland needs to reduce its loads by almost 18%, even though, on a proportional and total load basis, Maryland made greater progress reducing loads from 1985 until the present. In addition, if one looks at reductions needed on a "per acre" basis - NY ranks 6 out of the 7 bay jurisdictions i.e., reductions equivalent to 0.6 lbs N/per acre compared for example with PA and DE who need to achieve reductions of 2.05 and 2.71 lbs/per acre, respectively.

DEC has also argued that the necessary pollution reductions are unachievable for New York. We disagree. Taking nitrogen reductions as an example, New York has to reduce nitrogen pollution by roughly 2.3 million pounds from 2009 levels. Modeling scenarios that simulated the maximum rate of implementation of pollution reduction practices in New York would result in an additional 2 million pounds of N reductions. Hence, what NY is being asked to do, does not equate to doing every practice on every acre of farmland. Furthermore, cleaning up New York's waters, many of which are also degraded for nutrients and/or sediments, will improve local economies by enhancing recreational opportunities associated with fishing, swimming, etc.

As described in DEC's most recent Watershed Inventory/Priority Waters List reports for the Susquehanna and Chemung river basins, many of the streams, rivers and lakes are currently degraded due to agricultural activities. [FN2] In the Chemung River Basin, sediment and nutrient-related impacts, primarily from agricultural activities, are affecting about one-third of the basin river miles. For the Susquehanna River basin, the impacts are fewer; however, roughly one-third of the rivers and streams in the basin have not been assessed. The list of waterways affected by agriculture includes, but is not limited to:

- Madison County: Payne Brook and tributaries, Lebanon Reservoir, Ostelic River and tributaries
- Broome County: Whitney Point Lake, tributaries to lower Susquehanna River

- Chemung County: Lower/Mainstem Chemung River, Seeley Creek
- Steuben : Cohocton River, Five Mile Creek, Twelve Mile Creek.

Many others waterways are also impacted by silt and sediment erosion. However, only a few of these impacted segments are officially listed on the state's Section 303(d) list as impaired.

Reasons for this are twofold, first, as noted above many streams and rivers have not been assessed, and second, the subjective method of listing that DEC employs . By its own admi "best professional judgment" is used in determining whether waterbodies that violate disso oxygen standards should be listed as impaired. [FN3] This approach is overly subjective. The Environmental Protection Agency in their guidance on this issue recommends the states clc articulate their decision rules regarding listing and reasons for excluding data. [FN4] We believ York's listing process is flawed, and, in fact, violates the Clean Water Act.

To restore local rivers and streams and, ultimately, the Chesapeake Bay, we strongly encou the state to provide the necessary details in their WIP for how they will achieve the necess reductions by 2025, consistent with EPA's letters to the Principals' Staff Committee of September 11, 2008, November 4, 2009, and April 2, 2010. New York's responsibility to develop an adequate WIP that meets the Bay TMDL allocations and provides reasonable assurances of required pollution reductions is founded on the firm requirements of federal I

The Clean Water Act (CWA or Act) [FN5] provides the basis on which the draft WIP must be evaluated. Enacted in 1972 to compel the restoration of the nation's waters, [FN6] the CWA reqi the states to establish water quality standards and to take the necessary actions, including tl by upstream states, to ensure that the waters meet those standards, thereby achieving CWA goals. [FN7] If a state does not promulgate water quality standards or falls short of CWA requirements in doing so, EPA will set the standards for the state. [FN8] The CWA prescribes tlof technology-based effluent limitations for most point sources discharges [FN9] and, if those measures do not achieve water quality standards, the Act requires the use of water quality- controls under Section 303(d). [FN10]

The draft WIP forms part of the CWA's § 303(d) TMDL program, which requires identific and listing of all impaired water bodies within a state's borders. For each listed segment, S 303 and implementing regulations require the state to establish a TMDL for specified pollutants. [FN11] A TMDL is the maximum amount of a pollutant -- from background, point at nonpoint sources, together with a margin of safety -- that the water body can receive and st attain water quality standards. [FN12] These requirements apply to both point and nonpoint sour pollution. [FN13] When triggered by CWA requirements, the states and EPA are required to establish a TMDL, as courts have recognized. [FN14]

Once a TMDL is established and approved by EPA, the affected states must adequately implement it to ensure water quality goals are attained. Thus, CWA § 303(e)(1) requires each state to have a continuing planning process that results in implementation plans for all navigable waters within state boundaries, which include effluent limitations and compliance schedules as required, § 303(d) TMDLs for pollutants, and "adequate implementation, including schedules of compliance, for revised or new water quality standards," including those of downstream states. [FN15] Resort to a TMDL is the CWA's "backup" strategy for achieving water quality standards; it is invoked when point source permits and best management practices (BMPs) for non-point sources (NPS) have not succeeded. [FN16] Accordingly, EPA may only approve a state-submitted implementation plan that provides assurances it will succeed in "implement[ing] applicable water quality standards." [FN17]

What constitutes reasonable assurances will vary depending on the water body and the pollution sources at issue. [FN18] In the case of TMDLs for waters impaired only by point sources, National Pollutant Discharge Elimination System permitting may be sufficient to provide reasonable assurance that the TMDL's waste load allocations will be achieved. For waters impaired by both point and nonpoint sources, a TMDL may not allocate WLAs based on an assumption that NPS load reductions will occur unless the TMDL provides reasonable assurances that NPS control measures will achieve expected load reductions. [FN19] The bottom line is clear, however: To carry out CWA's command to ensure water quality standards are attained, EPA must be able to determine that a plan's claimed load allocations are not based on excessively optimistic hopes concerning the amount of NPS pollutant reductions that will occur. "If the reductions embodied in load allocations are not fully achieved because of a failure to fully implement needed NPS controls, the collective reductions from point and NPS will not result in attainment of the water quality standards." [FN20]

The current draft WIP from New York does not satisfy the requirements of the Clean Water Act. For one, it fails to achieve the necessary allocations for nitrogen, phosphorus and sediment and two, it fails to provide the necessary reasonable assurance that the required reductions will be achieved.

We sincerely hope that the final WIP submitted to EPA is sufficient, so as to avoid the need, EPA to invoke the "backstop" provisions in its proposed TMDL.

[FN1] New York State Tributary Strategy for Chesapeake Bay Restoration.

[FN2] <http://www.dec.ny.gov/chemical/36746.htm> and <http://www.dec.ny.gov/chemical/36734.htm>

[FN3] http://www.dec.ny.gov/docs/water_pdf/asmtmeth09.pdf

[FN4] <http://www.epa.gov/owow/tmdl/2006IRG/report/2006irg-report.pdf>

[FN5] 33 U.S.C. §§ 1251, et seq.

[FN6] 33 U.S.C. §§ 1251(a)(2) and 1313(c)(1) (CWA goal is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters").

[FN7] 33 U.S.C. §§ 1251(a), 1312, 1313; 40 C.F.R. §§ 122.44, 130.3, 131.2.

[FN8] 33 U.S.C. §§ 1303(b), (c)(3)-(4).

[FN9] 33 U.S.C. § 1311(b)(1).

[FN10] 33 U.S.C. § 1313(d).

[FN11] 33 U.S.C. § 1313(d)(1)(C). Development of a TMDL is mandatory when triggered by the CWA. See *Nat. Resources Defense Council v. Fox*, 909 F. Supp. 153 (S.D.N.Y. 1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in Section 303); *Alaska Center for the Environment v. Reilly*, 762 F. Supp. (W.D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs).

[FN12] See 33 U.S.C. § 1313 (d)(1)(C). Effluent limits in NPDES permits must be consistent with "assumptions requirements" of any "available waste load allocation" in an approved TMDL. 40 CFR § 122.44(d)(1)(vii)(B)

[FN13] E.g., *Pronsolino v. Nastri*, 291 F. 3d 1123 (9th Cir. 2002).

[FN14] E.g., *Natural Resources Defense Council v. Fox*, 909 F. Supp. 153 (S.D.N.Y. 1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in CWA § 303); *Alaska Center for the Environment v. Reilly*, 762 F. Supp. 1422 (W.D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs); *Sierra Club v. Hankinson*, 939 F. Supp. 872, 873 (N.D. Ga. 1996) (To attain CWA goals, EPA must ensure that TMDLs are implemented).

[FN15] See 33 U.S.C. §§ 1251(a), 1313(e)(1) and 1313(e)(3)(C),(F); 40 C.F.R. Part 130.6(b),(c) (TMDLs must be included in Water Quality Management Plans used to direct implementation).

[FN16] See 33 U.S.C. § 1313(d)(1)(A); 40 C.F.R. 130.7(b)(1).

[FN17] See 33 U.S.C. § 1313(d)(2).

[FN18] See Guidelines for Water Quality-Based Decisions: The TMDL Process (EPA Office of Water Regulations and Standards) ("1991 Guidance").

[FN19] Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992, U.S. E.P.A. (2002), available at <http://www.epa.gov/owow/tmdl/guidance/fina152002.html>.

[FN20] See Correspondence, dated November 9, 2009, from EPA to xx at 5.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0734.001.001

Author Name: Augenstern Robert

Organization: Southern Tier East Regional Planning Development Board (STEPDB)

Southern Tier East Regional Planning Development Board (STERPDB) recognizes the importance of a healthy and thriving Chesapeake Bay and commends the efforts to restoring the Bay's ecosystem. However, we feel that the EPA's draft TMDL is inequitable, unattainable, and threatens to be punitive to our State and our local economies. We support the position of the New York State Department of Environmental Conservation (NYS DEC) and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0734.001.005

Author Name: Augenstern Robert

Organization: Southern Tier East Regional Planning Development Board (STEPDB)

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in NYS, STERPDB stands by the assessment of the NYS DEC and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with NY to develop a plan that will restore the Bay in a manner that is not an unbearable burden on NYS communities.

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0746.1.001.003

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

NYSDEC and other Statewide Programs

Many of the State-wide and regional programs to support the Bay TMDL program are described in the draft New York Phase I Watershed Implementation Plan (NY WIP) submitted in September 2010 by the New York Department of Environmental Conservation (NYSDEC) to support the Bay TMDL program. Just a few of these programs are listed below. Please refer to the proposed NY WIP for more details on these programs.

1. Dishwasher Detergent and Nutrient Runoff Law

In keeping with its long standing practice of being proactive and a leader on environmental issues which affect the State and its regional neighbors, the New York Legislature, during its 2010 session, passed the "Dishwasher Detergent and Nutrient Runoff Law" [FN3]. This law updated New York's existing ban on phosphorus in most detergents, by expanding the prohibition to dishwasher detergent which was not in common usage when the first ban was passed in the early 1970s. Studies have shown that dishwasher detergents can account for 9 to 34% of total phosphorus in municipal wastewater. It also banned, with few exceptions, the use of phosphorus containing lawn fertilizers in New York beginning on January 1, 2012. Lawn fertilizer typically contains up to 3% phosphorus and can account for up to 50% of the soluble phosphorus in stormwater runoff from lawn areas [FN4].

2. 2008 Revision of Wastewater Treatment Plant Discharge SPDES Permits

Twenty-eight "Bay Significant" wastewater treatment plant have been identified in the Draft Bay TMDL. Twenty six of these are municipal wastewater treatment facilities and two are agricultural-related industrial facilities. In 2008 NYSDEC began issuing SPDES permit modifications to these WWTPs that require maintenance of current nutrient removal performance by including nutrient Action Levels based on recent effluent data. These modified SPDES Permits also include a schedule of compliance requiring the implementation of nutrient removal optimization with a goal of achieving effluent levels of 12mg/L nitrogen and 2.0 mg/L of phosphorus. Finally, these permit revisions also require the submitting of reports with the results of an engineering analysis of feasibility and costs of greater levels of treatment. A conceptual design which would allow nutrient on effluent level to fall to 5.0 mg/L total Nitrogen (Nt) and 0.5 mg/L total Phosphorus (Pt). The intent of the engineering evaluation is to gather reliable facility specific data, including costs, to help NYSDEC identify appropriate site-specific remedies and priorities of subsequent capital investment in such significant infrastructure.

3. New York Has a Strong CAFO SPDES Permitting Program Which Is Working

New York State is now into the third five-year cycle of the State Pollution Discharge Elimination System (SPDES) permit for concentrated animal feeding operations (CAFOs). The New York permitting program applies to both medium and large CAFOs. As required in the most recent (2009) State (ECL) version of this permit [FN5]:

Medium CAFOs newly authorized under this ECL General Permit must: (1) have all nonstructural practices identified in the CNMP fully implemented, unless the Agricultural Environmental Management (AEM) certified planner and the owner and operator determine that a structural practice not yet scheduled to be installed is required in order for the nonstructural practice to be fully operational, (2) be in compliance with the implementation schedule requirements in Part III.C. of the ECL General Permit and (3) be appropriately operating and maintaining all practices implemented prior to obtaining permit coverage.

Large CAFOs newly authorized under this ECL General Permit will need to have a fully implemented CNMP prior to obtaining permit coverage.

In 2005 a Senior Extension Associate with PRODAIRY in the Cornell University Department of Animal Science and others described the successes of the New York CAFO SPDES permitting program to that point in time:

Implementing this aggressive permitting program has been challenging, but it has proceeded exceedingly well. Participation of large CAFOs in the permitting process is believed to be 100 percent. The vast majority of medium and large CAFOs have developed a Comprehensive Nutrient Management Plan (CNMP), and many have implemented dozens of structural and managerial practices with numerous more changes scheduled through 2009 and beyond. Reports indicate that farm inspections by personnel from the Department of Environmental Conservation (DEC) find that most operations are making good progress, with some experiencing a few minor, mainly technical violations. Dozens of private and public sector planners regularly attend training sessions to keep up to date on the latest developments in CAFO planning, science, and policy. The annual Northeast Region Certified Crop Advisor Training held in December and the annual Water Quality Symposium in March offer numerous hours of beginner and advanced CNMP training, including updates on new research, tools for planning, and environmental related sessions. A strong partnership has developed between the New York State Departments of Agriculture and Markets and Environmental Conservation, the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS), Cornell University and Cornell Cooperative Extension (CCE), the New York State Soil and Water Conservation Committee, and soil and water conservation districts (SWCDs). This partnership fosters communication links among the organizations so that multiple priorities and perspectives can be balanced. [FN6]

4. Local Water Quality Improvement Efforts

In addition to the above State-wide efforts, a number of local entities have contributed to the ongoing efforts to reduce nutrient and sediment discharges to the Bay watershed over the last twenty-five years, which are discussed throughout these comments.

a. NY Soil & Water Conservation Districts and Farm Bureau Programs

The New York Farm Bureau is a non-governmental, volunteer organization financed and controlled by member families for the purpose of solving economic and public policy issues challenging the agricultural industry. For over 65 years, New York State's 58 County Soil & Water Conservation Districts have been providing assistance to landowners, organizations, businesses and local government in the management of natural resources. Established under State law as local government subdivisions, Districts have the unique ability to work on both public and private lands to implement conservation programs that address local needs, while advancing state and federal objectives for protecting natural

resources.

Because of their proven ability to identify potential concerns, and implement solutions that serve to correct and prevent problems, Districts are the local go-to agency for an expanding range of issues. Districts are taking a proactive approach to meeting growing community needs, along with an increased workload resulting from new state and federal requirements, by broadening their programs and technical services. In addition to expanding assistance in traditional focus areas such as agriculture, Districts are diversifying into emerging issues including:

- stream and riparian area restoration
- storm water management
- watershed management
- wetland protection and mitigation
- drinking water protection
- habitat protection and enhancement
- emergency action planning
- flood protection and emergency response
- forest management and urban forestry
- onsite wastewater systems
- open space and farmland protection

Within the 16 County SWCD located in the Bay Watershed, well over 40 million dollars has been invested in our Ag Communities, Stormwater Management, Stream Stabilization, and Wetland Restoration since 1985.

b. The Chemung County Stormwater Coalition

This stormwater Coalition was formed in 2002 to address the Phase II Construction Permit requirements for the MS4's in Chemung County. Its Stormwater Team has been includes a NYS licensed engineer, an environmental educator, and an erosion/sediment control technician that serves the municipalities of Chemung County. The MS4s in Chemung County include the City of Elmira, the Town of Elmira, the Town of Southport, the Town of Big Flats, the Chemung County Department of Public Works, the Town of Horseheads, the Town of Horseheads, the Town of Millport, the Village of Elmira Heights, the Village of Wellsburg, and the Town of Ashland. The mission of the Coalition is to protect and improve water quality and natural resources in Chemung County with the involvement of citizens and agencies through planning, education, coordination, funding, project implementation and advocating for our water resources through a Stormwater Management Program. For each of the last 3 years, the eighteen municipalities within Chemung County have supported the Stormwater Team, each paying a portion of the \$300,000.00 per year budget for the Coalition. Between this and other funding, well over a million dollars has been spent on Stormwater over the past three years.

c. Upper Susquehanna River Coalition

The mission of the Coalition is to protect and improve water quality and natural resources in the Upper Susquehanna River Basin with the involvement of citizens and agencies through planning, education, coordination, funding, project implementation and advocating for our water resources. The USC integrates 3 major focus areas: Wetlands, Streams and Agriculture. To continue to promote clean water conservation in the Upper Susquehanna Watershed, the USC

districts use a multiple barrier approach to address nonpoint source issues. This approach addresses water quality issues at the source, across the landscape, focusing on the stream corridor, and is promoted programmatically through research, outreach and training.

d. Efforts at Municipal Wastewater and Water System Operations within the New York Portion of the Bay watershed

A number of municipal wastewater and water systems within the New York State portion of the Bay watershed have taken voluntary actions with the objective of reducing their nutrients levels discharged to the Chesapeake Bay watershed. Some of these are briefly described in Appendix A. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0746.1]

[FN3] Chapter 205 of the Laws of New York 2010, signed by the Governor on July 15,2010.

[FN4] Source: NYSDEC Factsheet on the new law at <http://www.dec.ny.gov/chemical/67239.html>.

[FN5] Source: NYSDEC Factsheet on the 2009 ECL CAFO permit (Permit No. GP-0-09-00I). Available at http://www.dec.ny.gov/docs/permits_ej_operations_pdf/eclcafosheet.pdf.

[FN6] Source: Clearwaters, a publication of the New York Water Environment Association, Spring 2005. Available at <http://www.nywea.org/clearwaters/05-1-spring/NYCAFO.pdf>.

Response

See response to Comment No. 0267.1.001.025

Comment ID 0746.1.001.019

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Similarly the TMDL should not identify which WWTPs have to do what the draft NY WIP calls "Beyond Phase I" phosphorous or nitrogen reductions.

Response

New York still had a nitrogen and phosphorus gap in its final Phase I WIP submission. Therefore, EPA was required to place a wastewater treatment plant gross WLA backstop in the final TMDL to close the gap. However, implementation of the TMDL/WLA backstop will be deferred until after the Phase 2 WIP is completed. In the interim, existing State permits which require treatment optimization, engineering evaluations to improve nutrient removal, and the implementation, within 18 months of permit effective date, of the recommendations from the engineering evaluations, will govern. EPA does not identify which facilities may require additional treatment controls in the final TMDL.

Comment ID 0746.1.001.028

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

The attachment to NY's draft WIP, entitled A Nonpoint Component to the New York CB WIP - Suggestions for Agricultural and Wetland Best Management Practice Implementation to Reduce Nutrients and Sediment Load (2010), Must be Considered an Integral Part of the Draft WIP But Its Implementation Limited to Voluntary Actions

These "suggestions" represent realistic and achievable agriculture related N/P/Sediment reductions practices that are expected to achieve the levels of reduction forecasted by NYSDEC in the draft WIP. The BMPs discussed in this document represent the likely maximum practical N/P/Sediment reduction from the remaining farms in the watershed. They were intended, however, to continue to be implemented as voluntary actions with participation encouraged by educational outreaching and the incentive of partial matching funds.

Response

This attachment was not included in New York's submitted final Phase I WIP. Because this attachment was not submitted as part of the final Phase I WIP, it is not being considered by EPA.

Comment ID 0763.001.002

Author Name: Child Laura

Organization: Otsego County, New York

New York State's working group, consisting of the New York State Department of Environmental Conservation, New York State Department of Agriculture and Markets, individual Soil and Water Conservation Districts from across the southern tier, the Upper Susquehanna Coalition and Cornell University, has submitted a Watershed Implementation Plan (WIP) that is rooted in science, an understanding of the trends in agriculture, demographics, land-use and climate in New York, is reasonable, realistic and based on available funds; and

WHEREAS, the EPA rejected the WIP as grossly deficient and proposes such 'backstop' measures as a ban on winter spreading of manure, CAFO style regulations for all animal operations, significant expansion of Municipal Separate Storm Sewer System (MS4) regulations to small communities, significant retrofitting of infrastructure for existing MS4 communities and the purchase, installation and maintenance state-of-the-art technology for municipal Waste Water Treatment Plants;

Response

See response to Comment No. 0080-cp.001.002 and 0287-cp.001.003

Comment ID 0771.001.001

Author Name: Bertoni John

Organization: Village of Endicott, New York

The Village of Endicott recognizes the importance of a healthy and thriving Chesapeake Bay and commends efforts to restore the Bay ecosystem. However, we feel that the EPA's draft Total Maximum Daily Load (TMDL) is inequitable, unattainable, and threatens to be punitive to our State and our local economies. We support the position of the NYS Department of Environmental Conservation and its water quality partners, and their assessment as put forward in the draft Watershed Implementation Plan.

Response

See response to Comment No. 0080-cp.001.002.

Comment ID 0771.001.005

Author Name: Bertoni John

Organization: Village of Endicott, New York

New York State has put forth a concerted effort to devise a draft Watershed Implementation Plan that sets forth goals to achieve realistic and attainable results, yet still has fallen short of the EPA's desired reductions. Due to the already low pollutant levels in New York, these required reductions cannot be met, and therefore, the extreme expense associated with the mandates will be fruitless. Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order to move forward in confidence, the TMDL load allocations need to be viewed as equitable and affordable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, The Village of Endicott stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay in a manner that is not an unbearable burden on New York State communities.

Response

See response to Comment No. 0080-cp.001.002.

20.2 - PENNSYLVANIA

Comment ID 0064-cp.001.006

Author Name: Hutchins Lawrence

Organization: Quail's Nest Industries

Pennsylvania's WIP needs to include better mechanisms to account for the use of non-cost share, voluntary BMPs by forest landowners and harvesters.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0067.1.001.016

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

While it is not perfect, we support in principle the Pennsylvania WIP as the only plan on the table that has a chance of ultimate success.

We support a watershed implementation approach that fairly distributes responsibilities, and where all contribute to the solution - a plan that incorporates actions that are reasonable and cost-effective. We believe that the Pennsylvania WIP is generally on the right track.

Response

Thank you for your comment supporting Pennsylvania's WIP. While EPA agrees that there were some good elements in Pennsylvania's WIP, there were some elements that did not meet the expectations outlined in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction or meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. Where EPA determined that a jurisdiction did not meet its target allocations or did not provide adequate reasonable assurance, EPA calculated that jurisdiction's draft backstop allocations by relying on the adequate portion(s) of the jurisdiction's draft Phase I WIP, where possible, and supplementing any remaining shortfall or insufficient amount of reasonable assurance with its allocation adjustments and determinations of reasonable assurance to achieve the necessary reductions. Although a number of backstop options existed, EPA primarily relied on decreasing the WLAs to the point sources. EPA did that because point sources are the pollutant discharging source sector for which the CWA gives EPA the clearest authority to ensure implementation of needed controls.

That being said, PA and EPA worked hard to improve the Pa WIP. Fortunately the final WIP is much improved and therefore, EPA has chosen to reduce or remove the backstops that were in the draft TMDL. The final assessment of the state WIP and EPAs backstop decisions can be found in Section 8.

Comment ID 0070.1.001.001

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

As the Executive Director of the Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR) for the last 13 years, who has spent the majority of his time working in the Chesapeake Bay Watershed on abandoned mine reclamation, watershed restoration, environmental education, environmental action projects, stream restoration, and abandoned mine drainage remediation projects, in partnership with a myriad of organizations from the Federal, State, County, and local grassroots level, I would like to respectfully submit comments on the Pennsylvania Department of Environmental Protection's Draft Chesapeake Bay Watershed Implementation Plan (draft WIP).

EPCAMR works to provide technical and administrative support to the Conservation Districts, coordinate reclamation activities, establish a public education outreach program within the schools, and to rejuvenate local watershed groups, primarily in those areas where streams are adversely affected by abandoned mine siltation and abandoned mine drainage. EPCAMR works together with nearly 75 local groups to inform and educate the public and to organize environmental interests relative to the purpose and value of specific reclamation, remining, and remediation techniques being proposed for sites in their local community.

I am a lifelong resident of the Wyoming Valley, and am particularly knowledgeable about the past mining impacts on the water quality of the Susquehanna River and its tributaries, having an extensive background in anthracite mining geology, aquatic biology, history, and underground hydrogeology of this area. As the Executive Director of EPCAMR, I have had the opportunity for many years to Chair the PA DEP's 319 Non-Point Source (NPS) Liaison Resource Extraction Workgroup Subcommittee that updated the PA DEP and US EPA Region III on project successes, outreach efforts, new innovative treatment technologies, implementation plans, watershed assessments, and networking opportunities that were convened on a yearly basis. I am also a member of the PA DEP's Mining Reclamation Advisory Board, as an Alternate Member appointed by the State Conservation Commission and have been a technical advisor and Ad Hoc Reclamation Committee member to the full MRAB for over a decade. I also sit on the Susquehanna River Basin Commission's Water Quality Advisory Committee and have done so for many years. A majority of EPCAMR's workload has been contained within the Susquehanna River Basin, and therefore, the Chesapeake Bay Watershed. EPCAMR Staff have assisted County Conservation Districts over the years to develop their Chesapeake Bay Tributary Implementation Strategies as well, providing statistical analyses of GIS data on stream segment impairments by cause and assisting with making recommendations on how to implement best management practices (BMPs) for those impairments, be it AMD treatment, land reclamation, agricultural impacts, stormwater runoff, streambank erosion, and riparian buffer establishment.

EPCAMR is aware that Pennsylvania's draft WIP was prepared to address the EPA's expectations for the Chesapeake

Bay Total Maximum Daily Load (TMDL), scheduled for publication in December 2010. EPCAMR has reviewed many TMDL Reports for watersheds in our region and provided water quality data, field reconnaissance support, GIS Mapping assistance to staff biologists of the Susquehanna River Basin Commission, and recommendations to the PA DEP Section 319 NPS Program water pollution biologists on stream segments previously impacted by AMD for removal from the Federal List of Impaired Waters due to our analyses of water quality improvements and aquatic insect population improvements over time, as well as due to the increase in the number of AMD remediation treatment systems that were constructed to reduce the loading rates of common metals (iron, aluminum, and manganese) found in AMD to our impaired watersheds.

EPCAMR understands that the US EPA directed the states to develop a Phase 2 WIP which will further subdivide the loads by local area (county). We also understand that these will NOT be regulatory allocations to each of the counties. Rather, they are to inform local implementers (e.g. municipal elected officials and planning agency personnel, county conservation districts and planning commissions) and organizations like ours, or community watershed organizations, of the nutrient, metal, and sediment loads generated by their geographical area so we can help implement or plan appropriate actions to reduce the loads. Local implementation efforts should focus on compliance with existing rules and regulations, as well as seeking opportunities for additional management actions from EPA's standpoint. Community groups are not trying to disobey or break current or existing rules and regulations, their watersheds, rivers, and streams, are already in non-compliance, from the standpoint that they do not have clean water available to them for a multitude of uses that others enjoy across the Commonwealth in healthier watersheds with minimal impacts.

AMD is "abandoned" mine drainage. Communities are not trying to force compliance on anyone; groups like ours are trying to develop landowner relationships and agreements to allow for the construction and remediation of AMD on parcels of their properties where the discharges emanate from, for the betterment of the entire community and watershed. However, they need some protections and compensation for the perpetual loss of the use of those particular parcels for them to get on board with our recommended implementation projects. The Commonwealth of PA would be very hard pressed to force a single landowner where an AMD discharge comes to the surface and flows across their land into compliance, when the underground mine water complexes, from which the water flows could be miles away in all directions, and take in many additional landowners on the surface. That is why voluntary cooperation by landowners is of the utmost importance to our partnerships with local community groups and municipalities.

Community awareness of the problems and the potential solutions to the impacts left by past mining practices is needed in our region. Most elementary aged school children do not even know what water pollution is. Sure they know that the streams are orange, red, and yellow, and have been told anecdotal stories by their parents or grandparents about the dangers of hanging around the local streams because of the mining impacts, but what they do not know is that they can become a part of the solution to cleaning up and restoring their own watersheds. EPCAMR has made it a point in our environmental education and outreach efforts to take school aged children and their teachers in our underserved, more impoverished, and underrepresented school districts to the streams within their local watersheds to teach them about historical mining impacts, water quality, fishery biology, stream ecology, and community volunteerism. This is where the focus should be. I've been in the schools for over a decade and you would be shocked to find that most elementary aged students do not even know the name of the Susquehanna River or their home watersheds in which they live. None of them have even heard of the Chesapeake Bay. Therefore, EPCAMR believes that a place-based Environmental Education component should be involved in the WIP, not just loading reductions. We need increases in awareness of the problem in the communities where we want to treat the water.

EPCAMR is currently working with the SRBC to develop an Anthracite Region AMD Remediation Strategy. EPCAMR and the SRBC are in the process of developing a strategy to assist in the cost-effective restoration efforts for AMD areas by identifying watersheds where reclamation activities would result in the greatest water quality improvements. We would like to seek additional funding to develop a comprehensive Mine Pool Evaluation of the Northern and Eastern Middle Anthracite Coal Fields. By June of 2011, EPCAMR will be reporting on and completing a comprehensive underground mine pool evaluation report for the Southern and Western Middle Anthracite Coal Fields, based on best available mapping and water quality resources available. The anticipated evaluation would dovetail with the proposed remediation strategy as SRBC would be able to assess the potential for augmenting low flows during droughts and for the possible use of small-scale hydroelectric power production at selected sites to provide revenues that would help to offset treatment costs and reduce waste allocation loads. Tom Clark, AMD Coordinator for the SRBC is working side by side with EPCAMR on these two complimentary efforts and is continuing to seek additional funds to complete the work plans.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0070.1.001.004

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR would like to be more actively involved with the Phase 2 WIP Implementation in partnership with the US EPA from December 2010 until 2017 and learn about the details on how it will be phased into the communities and the watersheds impacted. This involvement by EPCAMR is contingent upon being able to secure additional funding to support our full-time staff of two to continue providing the expertise and community support that we have been doing since 1997 in the NorthCentral and NorthEastern parts of PA impacted by past mining. While it's formidable that the US EPA has looked ahead towards the second stage of implementation that will extend from 2018 to 2025, when controls will be implemented to reduce loads from the interim to final target levels. EPCAMR does not have the ability to see that far into the future.

EPCAMR wants to believe that Pennsylvania is committed to protecting and enhancing our streams and watersheds and that the efforts here at home will in turn help in further restoring the Chesapeake Bay by 2025. There is no doubt in my mind that over the years, significant progress has been made to reduce nitrogen and phosphorus pollution of the local waters in the Pennsylvania watershed. EPCAMR believes that more attention needs to be paid to metal allocation loads in the tributaries of the Chesapeake Bay Watershed where the AMD impacts are. EPCAMR realizes that it is a difficult concept to understand when it comes to relating AMD to the Chesapeake Bay, but all you have to do is look at the legacy sediments and coal silt that is located behind every dam on the Susquehanna River from here to Maryland to realize that if those dams were not in place, that the coal fines, silt, acidity levels, and metals contamination would be much greater at the mouth of the Bay. In all of the Tributary Strategies developed by EPCAMR and our supporting Conservation Districts, many recommendations were made to implement strategies to remediate AMD problems in the tributaries, but not many were followed through on due to lack of funding and or lack of prioritization. More needs to be

done.

Response

See response to Comment No. 0302.1.001.008 regarding Phase II WIPs.

The pollutants of concern for the Chesapeake Bay TMDL are nutrients – nitrogen and phosphorous – and sediment. If Bay segments are impaired for other pollutants, EPA expects that jurisdictions will develop separate TMDLs to address those pollutants.

See response to Comment No. 0230.1.001.054 regarding management plans for dams located along the Susquehanna River.

Comment ID 0070.1.001.007

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

In the Anthracite Region, we cannot thank some of our regional co-generation facilities enough for the great job they do in reclaiming abandoned mine lands. These private companies are not obstacles, they should be considered one of the greatest assets we have in our region. Let us not forget that much of this work has been completed at no cost to the state or taxpayers. The backlog of reclamation needed for the nearly 190,000 acres of abandoned mine lands left unreclaimed in PA and over 5,500 miles of streams impacted by AMD is projected to cost more than \$3,000,000,000 in PA, and that only includes the Priority 1 and Priority 2 Sites. There are still nearly 11 Million Tons of CFB-ash has being beneficially used at abandoned mine sites throughout PA. Over 2 Billion Tons of waste coal has been burned as an alternative energy fuel source in PA.

Approximately 4500 acres of waste coal piles have been reclaimed in the last 20 years. PA DEP estimates that it costs around \$20,000 to clean up just one acre of abandoned mine lands. This estimate does not include the elimination of AMD that has detrimentally impacted our streams and rivers. For example, in the Wyoming Valley, Luzerne County, PA, hundreds of acres of abandoned culm banks have literally disappeared. The once dirty, ominous, abandoned mine land features that have dominated the landscape for nearly eight decades and blocked the beautiful view of the Susquehanna River from the East side of the Valley from the West, have been reclaimed utilizing coal ash for abandoned mine reclamation. People can travel the local highways and Interstate I-81 and now see clear cross the Wyoming Valley. Northampton Generating Supply Company, separated the culm, hauled it away, brought back the ash, compacted in lifts on the same site in which it came from, filled the mine voids, and reclaimed the site. It was a win-win situation. In the land beneath these culm banks, there's economic and environmental value.

Within the culm banks, there is energy to be recycled, and in the continued removal of these eyesores, EPCAMR sees great satisfaction in the reclaimed aesthetic look for Northeastern PA and across the State of PA as a whole. We should concentrate our efforts on reclamation of these undeveloped acres for social, economic, as well as environmental uses. Expanding and reconnecting our communities separated by mountains of culm, creation of open space areas, wildlife habitat enhancement, water quality improvements, improving the areas quality of life, recreational opportunities, stream

restoration, and economic development of these abandoned mine lands should be of the utmost importance.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0070.1.001.017

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

Resource extraction activities and abandoned mine lands (AML) have the potential to release sediment into nearby surface waters. EPCAMR firmly believes that abandoned mine drainage (AMD) from AML can impair the ability of streams to assimilate these nutrients effectively. My reason for repeating some of the information in the draft TMDL WIP Report is so that the general public interested in the abandoned mine issues can hone in directly on parts of the draft that could potentially impact their local watersheds, so I apologize for some redundancy, however, in this case I think it is warranted.

Reclamation methods include PA DEP's primary efforts to improve water quality through reclamation of abandoned mine lands (for abandoned mining) and through the National Pollution Discharge Elimination System (NPDES) permit program (for active mining). EPCAMR currently receives the majority of its funding for projects designed to achieve water quality benefits from the US EPA Section 319 Grant Program and Pennsylvania's Growing Greener Program. Federal funding is from the Department of the Interior's Office of Surface Mining (OSM) for reclamation and mine drainage treatment through the Appalachian Clean Streams Initiative and through Watershed Cooperative Agreements have also been a part of EPCAMR's historical funding streams to work with community groups to design, build, construct, operate and maintain AMD treatment systems within the Chesapeake Bay Watershed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0070.1.001.019

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

The primary concept employed by the mining program in dealing with sediment issues is prevention. The permitting process provides the framework for the necessary measures, typically collection ditches and sedimentation ponds, to have effective controls. Standard BMPs are employed on most permits. Coal mining permits and large noncoal permits typically include site-specific engineered Erosion and Sedimentation control plans.

There are about 1,750 permitted mine sites in Pennsylvania in the Bay watershed. Each of these permits include Best Management Practices for prevention of erosion and sedimentation. These permits also include revegetation plans to stabilize the post-mining reclamation area. There are about 475 mining sites in the Bay watershed for which there are NPDES permits. These permits include effluent limits for suspended solid and/or settleable solids. These measures prevent contributions of sediment in the watershed.

The point of planning and permitting is to prevent increased sediment loads as the level of earth disturbance increases. Mine sites and oil and gas development sites are subject to permitting which minimizes their impact on loads. In the case of coal mining, most new mine permits include some re-mining where AML is reclaimed in the course of mining. While the potential impact of the earth disturbance for mining is temporary, the overall improvement (i.e. the reclamation of AML) is permanent.

Funding/Staffing

DEP BAMR, which administers the program to address the Commonwealth's abandoned mine reclamation program, has established a comprehensive plan for abandoned mine reclamation to prioritize and guide reclamation efforts for throughout the Commonwealth to make the best use of valuable funds

(http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania%27s_comprehensive_plan_for_abandoned_mine_reclamation/13964). In developing and implementing a comprehensive plan for abandoned mine reclamation, the resources (both human and financial) of the participants must be coordinated to insure cost-effective results.

EPCAMR and WPCAMR assisted in the development of the PA Comprehensive Plan for Abandoned Mine Reclamation. EPCAMR and WPCAMR have served as the local liaison for the Commonwealth of PA for more than 20 years in WPCAMR's case, and for more than 14 years, in the case of my organization. I was previously employed by the PA DEP Bureau of Abandoned Mine Reclamation's Wilkes-Barre Office in the Northeast Region as a Science Intern in 1993 and as a Hydrogeological Intern for the Hawk Run District Mining Office in Western PA, now the Moshannon District Mining Office, in 1994 and 1995, prior to graduating from Penn-State.

The following set of principles guides this decision making process:

- Partnerships between DEP, EPCAMR, WPCAMR, watershed associations, local governments, environmental groups, other state agencies, federal agencies, & other groups organized to reclaim abandoned mine lands are essential to achieving reclamation & abating acid mine drainage in an efficient & effective manner.
- Partnerships between AML interests and active mine operators are important and essential in reclaiming abandoned mine lands.
- Preferential consideration for the development of AML reclamation or AMD abatement projects will be given to watersheds or areas for which there is an approved rehabilitation plan.
- Preferential consideration for the use of designated reclamation monies will be given to projects that have obtained other sources or means to partially fund the project or to projects that need the funds to match other sources of funds.
- Preferential consideration for the use of available monies from federal and other sources will be given to projects where there are institutional arrangements for any necessary long-term operation and maintenance costs.
- Preferential consideration for the use of available monies from federal and other sources will be given to projects that have the greatest worth.

-Preferential consideration for the development of AML projects will be given to AML problems that impact people over those that impact property.

-No plan is an absolute; occasional deviations are to be expected.

Since 2000, new approaches to mine reclamation and mine drainage remediation have been explored and projects funded to address problems in innovative ways. EPCAMR has been an instrumental partner in the development of these new approaches. EPCAMR co-coordinates State-wide Conferences on Abandoned Mine Reclamation with its' sister organization, WPCAMR, and a Planning Committee made up of State-wide regional non-profits, State representatives, Foundation representatives, and Colleges and Universities to network and exchange ideas on these new approaches and innovative AMD Treatment technologies. See our websites at (www.epcamr.org, www.amrclearinghouse.org and www.treatminewater.com).

These include: Awards of grants for: (1) proposals with economic development or industrial application as their primary goal and which rely on recycled mine water and/or a site that has been made suitable for the location of a facility through the elimination of existing Priority 1 or 2 hazards; and (2) new and innovative mine drainage treatment technologies that provide waters of higher purity that may be needed by a particular industry at costs below conventional treatment in common use today or that reduce the costs of water treatment below those of conventional lime treatment plants.

Projects using water from mine pools in an innovative fashion, such as the Shannopin Deep Mine Pool (in southwestern Pennsylvania), the Barnes & Tucker Deep Mine Pool (the Susquehanna River Basin into the Upper West Branch Susquehanna River), EPCAMR's Mine Pool Mapping Project and Groundwater Modeling for the Western & Southern Anthracite Coal Fields) and the Wadesville Deep Mine Pool (Exelon Generation in Schuylkill County) have also been funded.

Current and Future Reclamation Efforts in the Watershed

EPCAMR agrees that while numerous remediation projects have already been completed and others are underway, it will take decades at current funding levels until the entire problem areas in the Chesapeake Bay watershed are addressed. EPCAMR thinks that Pennsylvania should place an even higher priority on efforts throughout the entire Chesapeake Bay watershed, particularly in the Anthracite Coal Region. If the Chesapeake Bay Tributary Strategy is to be effective, than funding needs to be provided to projects in the tributaries. In addition to the problems associated with the water quality itself, tremendous amounts of recreation and tourism dollars have been lost in the watershed due to the mining impacts. EPCAMR feels that additional funding should be provided to community groups under the State's Set-Aside Program to conduct the necessary watershed assessments to make them eligible for the Title IV Funding that is currently being held in an interest bearing account while a re-prioritization of the criteria to become eligible for the funding is finalized.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0070.1.001.021

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR supports the PA DEP in developing a stormwater NPDES General Permit (GP) for mining activities. The intent of this permit should be to manage stormwater from mine sites where the hydrologic impact is limited to surface water. The GP requires the use of BMPs to manage stormwater to prevent sedimentation. It is anticipated that this GP will be finalized during the summer of 2010. However, again, it must be stated that the encouragement of infiltration into stormwater detention basins that are unlined on abandoned mine lands only encourage surface infiltration of runoff into the deeper mine pool complexes and local underground groundwater reservoirs. The PA DEP should consider looking into the underground effects of infiltration of stormwater runoff from abandoned mine sites (<http://www.stormwaterresourcesformunicipalities.com/>).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0070.1.001.023

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

In 2009, the Department published the draft Riparian Forest Buffer Guidance, Commonwealth of Pennsylvania, Department of Environmental Protection, Document # 395-5600-001 (2009), as amended and updated. The guidance lists various design, construction, and maintenance standards for developing a riparian forest buffer.

If initial WIP results indicate that a change in this approach is warranted, these funds can be targeted to specific locations and to specific BMPs. PA DEP could also target the specific BMPs identified by EPA Region III as their most critical for Bay model loadings. One of the five BMPs, which track closely to those that have been given priority in the effort, is: riparian buffers. Riparian buffers can still be implemented and planted along many of our rivers and streams in the Coal Region to reduce the overall sedimentation loads to the watershed and can be mapped by EPCAMR based on our RAMLIS GIS tool in relation to those abandoned mine lands that are adjacent to rivers and streams and have problem areas where sedimentation is prevalent and continues to downcut, undercut, and erode the culm banks.

A good example would be along the Lackawanna River in Lackawanna County, where acres of culm banks lay along the streambank of the Lackawanna River and during storm events and flooding events, slough off into the River and the sediments are carried downstream. Increased volume of stormwater runoff results in an increase in the frequency of bank full or near bank full flow conditions in stream channels. The increased presence of high flow conditions in riparian sections has a detrimental effect on stream shaping, including stream channel and overall stream morphology. Stream bank erosion is greatly accelerated. As banks are eroded and undercut and as stream channels are gouged and

straightened, meanders, pools, riffles, and other essential elements of habitat are lost or greatly diminished.

Laws, Regulations, Funding, Staffing and Technical Capacity

EPCAMR supports the increase in funding to support and fund the Pennsylvania Department of Environmental Protection, Department of Agriculture, County Conservation Districts, organizations such as ours, and Critical Programs such as Growing Greener and Clean Water Act, Section 319 so as to assure robust levels of personnel to provide outreach, technical assistance and cost-share funding in the implementation of necessary BMPs and to assure, where applicable, compliance inspections and enforcement of all existing regulations are being adhered to. EPCAMR works to reclaim abandoned mine land and watersheds impacted by abandoned mine drainage throughout the North Central Bituminous Region and Anthracite Coal Region of Northeastern PA, in partnership with our sponsoring Conservation Districts. Conservation Districts sustain, protect and restore the natural resources for the Commonwealth of Pennsylvania. EPCAMR supports Conservation Districts within the EPCAMR Region who are seeking dedicated sources of funding to provide 50% cost share for basic staff positions and cost-of-living increases to meet their goals. One possible source of dedicated funding for all Conservation Districts is through a severance tax in Pennsylvania for extraction of oil and gas deposits. Although Pennsylvania has never initiated a severance tax, many other states in the country have established this type of tax to fund various budgetary items. For instance, Oklahoma has a gross production tax on oil, a small portion of which is earmarked for natural resource protection. Wyoming has a severance tax that subsidizes their state's general fund, thus indirectly partially funding Conservation District activities.

EPCAMR also supports a portion of any severance tax for the Environmental Stewardship Fund, which has funded many "Growing Greener" grant projects that EPCAMR has been awarded in the past or where EPCAMR has been a partner. Funding for our organization and our sister organization (WPCAMR) is also vital to continue the reclamation of abandoned mine lands, remediation of streams and rivers impacted by abandoned mine drainage (AMD), and to further the economic redevelopment potential of the reuse of underground abandoned mine pools throughout PA. Only \$6 Million is anticipated to be allocated state-wide in the most recent round of Growing Greener for watershed restoration projects. EPCAMR firmly believes that a small, predictable portion of any state mandated severance tax should be allocated directly to the Conservation District Fund to help all Conservation Districts across the state maintain their environmental protection programs. Using a natural gas severance tax of 5% on the value of the natural gas at the wellhead, plus 4.7 cents per 1,000 cubic feet of natural gas taken from the ground, \$178.6 million would be generated in the 2010-2011 fiscal year and increase to \$475.6 million by 2014-2015. We recommend 3% of the severance tax, or approximately \$5.358 million in the 2010-2011 fiscal year, be dedicated to the Conservation District Fund. By the 2014-2015 fiscal year as the severance tax revenue grows, approximately \$14.3 million would be generated for the Conservation District Fund. Obviously this type of dedicated funding would resolve many of the financial challenges our Conservation Districts collectively face on a daily basis.

EPCAMR is also in need of additional administrative funds that can be found through grant funds under the Environmental Stewardship Fund. We are in a position as a regional non-profit environmental organization, founded by Eastern PA Conservation Districts and other reclamation related partners and watershed groups that has been providing technical assistance, grant writing assistance, project coordination, project management, grant administration, Geographic Information System mapping assistance, research on AMD Treatment technologies, innovative AMD Treatment Design and Construction, environmental education, and the continued building of diverse partnerships and leveraged funds to reclaim our Commonwealth's abandoned mines and watersheds impacted by AMD. For more nearly 15 years, EPCAMR has been providing support to our Conservation Districts, watershed organizations, and local

governments within the EPCAMR Region on abandoned mine reclamation issues, environmental education, and watershed improvement projects.

It is undisputed that EPCAMR and Conservation Districts provide much needed services to Commonwealth citizens to help them identify and resolve critical natural resource concerns. EPCAMR and Conservation Districts deliver essential services that protect our soil, water and air for a reasonable cost. Since there is a direct link between the removal of natural resources and natural resource protection activities, it makes sense to consider advocating a portion of a severance tax for natural resource protection activities. A severance tax, a portion of which would be dedicated to the Conservation District Fund and to the Environmental Stewardship Fund should be enacted. We do not underestimate the power on a local level of other regional non-profits, nor do we claim that we are the only organizations that can provide some assistance to the PA DEP and the US EPA. We just want to make the Commonwealth and the US EPA Region III know that our organization would like to have an integral relationship in the protection and restoration of the Chesapeake Bay Watershed and that we have been supporting such efforts for nearly 15 years. We do not have all the answers either, but we are part of the solution.

Urban and Rural Reforestation

The two additional DCNR-based programs that promote reforestation of urban and rural parts of the Bay Watershed, TreeVitalize could be promoted more widely to our community groups and watershed associations in the mining impacted areas to assist with the replanting of riparian buffers along our rivers and streams where culm banks are a part of the landscape in the urban and rural settings. This program is not often promoted to these organizations. The Scranton-Wilkes-Barre Area, Pottsville, Shamokin, Mt. Carmel, Hazleton Area, are all urban communities that this Program could be expanded into. EPCAMR would be willing to promote it within these communities to our partners.

Riparian Forest Buffer Initiative

EPCAMR in the past had played an important role in implementing small riparian forest buffers along stream channels that had been recently reclaimed through the construction of rip rap channels to control overland flows off of the reclaimed mine sites. In 2005, Plymouth Township, Luzerne County, we were able to plant willow sheens, native shrubs, viburnum, and other wetland plants donated by the Octoraro Nursery in partnership with the Chesapeake Bay Foundation, Alliance for the Chesapeake Bay, and the Plymouth Township Planning Commission along a 1500' section of an unnamed tributary to the Susquehanna River that we called Sickler Run, locally. It is anticipated that more of these riparian buffer projects can be completed to add to the Stream ReLeaf, or Riparian Forest Buffer database in years to come.

Appalachian Regional Reforestation Initiative

The Appalachian Regional Reforestation Initiative (ARRI), a federal partnership program that supports planting trees for water quality, is a coalition of citizens, non-profit groups, the federal Office of Surface Mining (OSM), and states who are dedicated to restoring forests on coal mined lands in the Eastern United States. GIS analysis indicates that there are 120,000 acres of abandoned mine lands within the Upper Susquehanna--Lackawanna River Basins. These lands represent a great opportunity to expand forest cover within the Bay watershed while reintroducing native trees to the region. The restoration has already begun. EPCAMR, SRBC, Earth Conservancy, and the Lackawanna River Corridor already have existing relationships with many landowners, community watershed organizations, regional non-profits,

and coal operators in this Region. EPCAMR is also already an ARRI partner and has signed its Statement of Mutual Intent. EPCAMR is very supportive of The American Chestnut Foundation and its mission to help restore the American Chestnut propagation back into our landscape, including on abandoned mine lands.

Many of the forested acres are managed with best management practices are not currently recognized or counted in the Chesapeake Bay model either and should be added to the mix. EPCAMR believes that every tree planted on an abandoned mine site, be it by the private coal mining industry, or volunteers, or through ARRI should be counted for consideration as an innovative approach to sequester carbon. Trees are growing on these sites over the years as a part of the reclamation plan and are providing additional root zones to fixate nitrogen and to trap CO₂. Some of the Pennsylvania Game Commission's 1.04 million acres of forestland in the Bay watershed, are all well-managed and follow multiple best management practices, and do include some abandoned mine lands that can fall under the ARRI Initiative. Even reclamation mixes of grasses, legumes, and other ground-cover vegetation plant species are reducing the runoff from abandoned mine sites following the reclamation phase of mining. Vegetated reclamation sites should also be included in the Chesapeake Bay Model under number of reclaimed acres.

Remediation of Acid Mine Drainage Sites

EPCAMR agrees that remediation of abandoned mine drainage (AMD) sites in forested areas represents an opportunity for increased biological activity and algal uptake of nutrients and should be accounted for as reductions to the forest load in the Chesapeake Bay model. A study completed by Stroud Water Research Center showed that "despite near-neutral pH in the AMD-impacted stream (Lorberry Creek), iron hydroxide deposition interferes with normal periphyton colonization and enzyme activities". Rattling Run, an Exceptional Value stream in the Anthracite region, had chlorophyll-a levels nearly fifteen times greater than Lorberry Creek. Stroud also stated that the "most important implication of these findings is that, although water chemistry in a stream might be technically within a range that can sustain aquatic life (i.e. circumneutral pH and low dissolved metals concentrations), metal deposition on substrata clearly inhibits microbial colonization and severely limits phosphorus availability to aquatic bacteria, fungi, and algae." EPCAMR has numerous other project locations within the Anthracite Region that concur with the Stroud Water Research Center's example. For example, here in Luzerne County, many of the tributary streams impacted by AMD are circum-neutral with a pH of 6-6.5, are more alkaline than acidic, often have high sulfate concentrations, Total suspended solids, area large volume flows, and have heavy loadings of suspended iron that are severely coating the bottoms of the stream channels for miles until reaching the Susquehanna River. This iron hydroxide coating, prevents the aquatic populations from reproducing in these areas, leaving them with little biological diversity and stagnant. However, if additional AMD treatment systems are designed and constructed, the metal loadings can be reduced through the use of artificially constructed wetland systems, specifically constructed for the removal of the iron loadings that will reduce the overall iron loadings to the Susquehanna River and eventually the Chesapeake Bay. EPCAMR has even found several ways to recycle, harvest, dry, and re-use the iron hydroxide from these treatment systems to help fund its environmental education programs in the Region.

We've been doing this for nearly a decade. See our link at (<http://epcamr.org/storage/EnvEdBrochure2010.pdf>). EPCAMR has had the iron hydroxide tested for pigment quality and it is very high in a number of discharges within the Chesapeake Bay, upwards in the range of 92-98% pure iron oxide, once dried. EPCAMR makes its own wood stains for public recreational and trail projects, iron oxide chalk programs in schools, AMD Tie Dye Workshops, Art Shows with various regional Art Leagues, mixes its own paint, and has sold it to over 10 states to community groups interested in utilizing it for similar projects that we've initiated in PA. See our link (

http://epcamr.org/storage/iron_oxide_recovery_pamphlet2.pdf).

There are many uses for iron oxide in the United States and worldwide. The current markets for low-grade iron oxides in the United States alone is approximately 175,000 tons per year (1995 estimate; Hedin Environmental SBIR research), while the current world market for a similar grade product is approximately 850,000 tons per year. The typical revenue from this quality of material is approximately \$0.10 - 0.75/lb (Hoover Color; Bayferrox Corp). Higher value "specialty" iron oxide products are typically used in the animal vitamin supplement or cosmetics markets and have a higher associated economic value, as much as \$3.00 - 4.00/lb. EPCAMR has been able to sell the iron oxide that we process in-house in 5 gallon buckets collected by ourselves or seasonal interns and dried in a small soil oven, big enough to make 4 batches of cookies for \$5.00/oz. and it still does not cover the costs of our time to get it to the final form to get it to market. However, we are utilizing the iron oxide to support our educational programs and not for a profit. These load reductions in terms of pounds of iron oxide removed from the AMD treatment systems should also be included in the Chesapeake Bay Model.

EPCAMR totally agrees with the logic presented by the Stroud Water Research Center that the nutrients (especially phosphorus) being transported to Chesapeake Bay associated with metal hydroxide-based sediments, to which dissolved phosphorus has a strong affinity, could be reduced through remediation of the mined site and restoration of aquatic life to the stream. Similarly, even though the nitrogen species do not have the same affinity for sediments as the dissolved phosphorus, nitrogen uptake within the watershed by the benthic algae would decrease that available to be delivered to Chesapeake Bay. EPCAMR agrees that these reductions should be credited to the forested areas because the load was probably attributed to forest in the original modeling as the calibration gages are downstream of primarily forested sites.

However, EPCAMR does feel that not only should there be an emphasis on the restoration of the publicly owned lands, but in the urban environments, where the larger number of communities and population centers are being directly affected by the AMD pollution problem. Funding spent in these areas where there is a much higher incidence of local traffic by the local community would not only benefit them in achieving a higher quality of life, but it could lead to an increase in personal property values, increased recreational opportunities like swimming and fishing, economic redevelopment opportunities, conversion of abandoned mine lands into recreational spaces like trails constructed by the Earth Conservancy and others, an increase in water quality and improved aquatic stream health, and an increase in the number of visits to their local places as opposed to having to drive much further to State Parks and State Game Land areas during economic hard times.

EPCAMR Staff worked and participated with The American Chestnut Foundation, the Pennsylvania Game Commission, OSM's Patrick Angel, other OSM staff, volunteers from the OSM/VISTA Appalachian Coal Country Watershed Team, Schuylkill County Conservation District, and the Schuylkill Headwaters Association community volunteers to plant the 2,500 trees on an abandoned mine land site in Schuylkill County in 2009 in partnership with a local Anthracite Coal Company Operator. The ACCWT is a national team of AmeriCorps VISTA volunteers supported by the Corporation for National Service, the Office of Surface Mining, and local sponsors, such as EPCAMR and the Anthracite Heritage Alliance. They are providing much needed additional on the ground support to groups like EPCAMR, Schuylkill Headwaters Association, Schuylkill County Conservation District, and other community groups. See more details on the ACCWT Team on (www.accwt.org).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0086-cp.001.003

Author Name: Strait Craig

Organization:

Local townships have only recently started to implement the three-year pump and haul program that is required by their Act 537 Plans, some of which were approved more than ten years ago. I do not understand why it has taken this long for enforcement to begin. I feel there needs to be more regulatory action against those who fail to follow through with the contents of their Act 537 Plan in a timely manner. There needs to be more accountability from the elected township officials who fail to realize the importance of their job.

Response

Thank you for your comment. Please see the response to comment number 0110.001.005. EPA also notes, with respect to substantive comments regarding individual jurisdictions' Phase I WIPs, that the WIPs submitted by each jurisdiction are part of the accountability framework outlined in the Chesapeake Bay Protection and Restoration Executive Order 13508. The WIPs help ensure implementation of the Chesapeake Bay Total Maximum Daily Load (TMDL) but are not an approvable part of the TMDL. Because this public comment period is specific to EPA's Chesapeake Bay TMDL, specific comments on each jurisdiction's WIP should be directed to the appropriate jurisdiction for consideration. EPA has forwarded this comment to the appropriate jurisdiction for consideration as part of its WIP.

Comment ID 0144-cp.001.002

Author Name: Perreault Mark

Organization: Citizens for a Fort Monroe National Park, (CFMNP)

We ask EPA to carefully evaluate all WIPs to assure they provide measurable and effective mechanisms to reduce nutrients flowing into the Bay to desired limits within the time frames established. And they should provide detailed alternatives to address contingencies, if expected progress in one or more areas does not occur. These measures should be particularly strong and amendable in the cases of where the greatest problems are being observed, such as non-point sources such as storm water from suburban sprawl and pollutants from agriculture. Effective deadlines with real consequences for failing to meet them are also necessary.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0185.1.001.018

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Pennsylvania

Overall

The Pennsylvania draft WIP is characteristic of nearly all the states' submissions. It includes a detailed recitation of the state's programs to control pollutants, but fails to provide specific numbers on the effectiveness and scope of these programs. The transparency of information is uneven across the major sectors, and the strength of its programs is average. The draft WIP does not explain how each requirement or incentive strategy will result in the reduction of a specific amount of pollutants so that the states will meet their allocations under the Bay TMDL. Without such specific details, or an explanation of what additional programs the state intends to implement, the WIP is no more meaningful to the EPA or the public than a visit to the state's website. Because Pennsylvania did not provide such essential details, it is difficult to determine the effectiveness of existing programs. EPA itself considers the WIP to be "very weak compared to the amount of N, P, and sediment [that Pennsylvania] must reduce." [FN 20]

The draft WIP would lower the sediment discharges to a level that meets the target allocation. However, the draft WIP still permits the nitrogen and phosphorus discharges to be 4 and 16 percent, respectively, more than the level allowed by the target allocations. In its final Phase I WIP, Pennsylvania must explain precisely how it intends to meet these reduction targets by strengthening its permitting and enforcement programs and making additional commitments to monitor and verify voluntary pollution management practices.

NPDES Permitting

Pennsylvania includes some baseline information, including the number of CAFOs and stormwater dischargers that have NPDES permits, but overall the draft WIP fails to provide a snapshot of the universe of all NPDES-regulated facilities and the number of which have up-to-date NPDES permits. The draft WIP does not say when the state's NPDES permitting program will be in compliance with the pollutant allocations in the Bay TMDL.

Similarly, Pennsylvania failed to establish deadlines, timelines, or qualitative goals for updating and reissuing expired and administratively continued NPDES permits. For example, the state could commit to reissuing and updating a certain number of permits per month for a certain program and could include this target as one of its two-year milestones. Bay states should identify institutional milestones, such as goals for hiring more permit program staff by a certain time or establishing and maintaining a database of NPDES permit holders, to ensure that the existing NPDES permitting program better regulates and monitors pollutant discharges.

Enforcement of NPDES Permits

The draft WIP provides general information on how enforcement for stormwater is prioritized. According to the WIP, in 2008 DEP and conservation districts conducted over 10,000 compliance inspections in the stormwater program, but it is unclear whether these inspections were physical, on-site inspections or simply reviews of self-submitted paperwork. They investigated 1,439 citizen complaints and collected \$135,000 in penalties, a token amount.[FN 21] The WIP also notes an increased focus on agriculture and stormwater compliance, but the efforts sound mostly cooperative and voluntary rather than deterrent in nature.

In the final WIP, Pennsylvania should provide the following information for all of the NPDES sectors: number of inspections; number of facilities in significant noncompliance and the reasons why; and number and types of enforcement actions taken and penalties assessed. The WIP should also discuss local governments' enforcement authorities and activities, enforcement resources, and major facilities in significant noncompliance.

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

The Pennsylvania WIP briefly explains that it has a targeted watershed approach to monitor and ensure proper implementation of agriculture BMPs, but fails to provide adequate detail about how these watersheds are identified and more importantly how Pennsylvania will ensure proper implementation.

The draft WIP does provide, for some voluntary programs such as the Growing Greener Watershed Protection Grant Program and the Pennsylvania Agricultural Conservation Easement Purchase Program, the past funding levels and current budgets. For example, the Growing Greener Program gave \$12.6 million statewide for the grant period ending in April 2010 and will give \$6 million for the current grant period. However, the draft WIP does not allocate a specific portion to monitoring and verification activities. In the final WIP, Pennsylvania should conduct a more thorough gap analysis to better identify how existing programs can be used to maximize pollutant reductions, what new programs may be needed, and what staffing and funding are necessary to ensure successful reductions from nonpoint sources.

Contingencies

Pennsylvania's draft WIP speaks only in generalities about what contingencies would be implemented if primary pollutant controls fail to produce the necessary reductions. In the final WIP, Pennsylvania should ensure that its contingencies are clearly identified. They must be coordinated with specific failures, have timely implementation deadlines, and be effective. The WIP must identify what, if any, additional legal authority is needed to implement these contingencies and ensure that the enactment of these authorities is not an excuse for delay.

Concentrated Animal Feeding Operations

According to the draft WIP, Pennsylvania has 317 permitted CAFOs within its portion of the Bay watershed but does not provide an estimate of the universe of CAFOs that require but do not have permits.[FN 22] A recent estimate by EPA indicates that Pennsylvania has roughly 480 CAFOs in the entire state, 334 of which have permits and 146 of which do not.[FN 23] Pennsylvania's CAFO permitting program is in the review process and changes, if any, will be made after its current General Permit expires on September 30, 2011. The WIP does not include any discussion of the specific regulatory revisions that may be needed to comply with the new federal regulations. The WIP is honest in stating that the DEP staff for the CAFO program are "insufficient to ensure compliance" and that "there is no expectation that

additional state funds for staff resources will become available in the near term." [FN 24] At present, the WIP indicates that the CAFO program has startlingly few staff resources: 1.2 staff positions at the Department of the Environment's central office and another 6 staff positions in regional offices for inspection, compliance, and permitting activities. [FN 25] This low number, 7.6 total staff positions for 480 CAFOs across the state, does not inspire confidence that Pennsylvania's program is or can be effective.

Pennsylvania's final WIP should disclose what regulatory changes are likely to occur as a result of updating the CAFO regulations, including whether or not the CAFO regulations should be expanded to include more AFOs. It should also specify the details of CAFO inspection, setting a physical, onsite inspection rate of at least 20 percent annually.

Stormwater

Pennsylvania's stormwater section is primarily an inventory of existing laws and regulations with no additional description of how these tools will be used to achieve pollutant reductions. EPA notes that the existing programs have "questionable enforceability and accountability." The WIP also does not disclose the extent of authority delegated to local governments that administer the stormwater program.

The WIP does well in recognizing that the permit fees are insufficient to implement the stormwater program but does not propose a timeline for seeking an increase in those fees. In the final WIP, Pennsylvania should explicitly state how it will improve its stormwater program to achieve the allocations in the Bay TMDL.

Air Deposition

Pennsylvania plans to rely on reductions from implementation and enforcement of Clean Air Act requirements, specifically by reducing pollution from sources such as kilns and glass manufacturers, and switching to renewable energy sources. Pennsylvania's final WIP should further detail its state air pollution programs that can be used to reduce air deposition of nitrogen and specific actions that demonstrate how the state will use these other authorities, as it did with the kilns and glass manufacturers. Pennsylvania should also ensure that it has the staff and financial resources to conduct an effective air program, and, if not, propose how it will obtain these resources.

[FN 20] U.S. EPA, "Summary: EPA Evaluation of Pennsylvania Draft Watershed Implementation Plan" (Sept. 24, 2010) (on file with Yee Huang).

[FN 21] The WIP does not state the number of penalties sought or provide an estimate of how much was sought for each penalty.

[FN 22] Pennsylvania Department of Environmental Protection, Pennsylvania Chesapeake Watershed Implementation Plan 63 (Sept. 2010), available at

<http://files.dep.state.pa.us/Water/Chesapeake%20Bay%20Program/ChesapeakePortalFiles/9-2-2010/PA%20DRAFT%20WIP%209-1-%202010.pdf> (hereinafter "PA WIP").

[FN 23] U.S. E.P.A., "NPDES CAFO Rule Implementation Status-National Summary, First Quarter 2010" (Mar. 31, 2010), available at <http://www.epa.gov/npdes/pubs/tracksum1Q10.pdf>. Of the 480 estimated CAFOs, 334 have permits according to EPA data.

[FN 24] PA WIP, *supra* note 22, at 64.

[FN 25] *Id.* at 65

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0201.1.001.002

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

The greatest potential for roadways to generate sediment is when roadway maintenance and improvement projects are conducted. By complying with PADEP's existing regulatory program for construction activities and with PennDOT's policies contained in the Drainage Manual and by designing projects consistent with the standards contained in approved Act 167 plans, the potential generation of sediment from these activities is addressed.

Response

EPA agrees that roadway construction activities can and often do contribute notable sediment loads to receiving waters. A great deal more effort is needed to ensure that discharges from construction activities comply with the Clean Water Act, and all relevant federal, state and local regulations.

Comment ID 0216.1.001.001

Author Name: Johnson Rick

Organization: Algae Producers of America

Like many, I have been watching, with interest, the large amount of effort being directed towards the Chesapeake Bay Watershed cleanup efforts, in particular, the efforts of the state of Pennsylvania. Recently, I had the opportunity to read the Summary EPA Evaluation of the Phase I Pennsylvania Draft Watershed Implementation Plan (WIP). While the progress made to date has been significant, the challenges which this Evaluation noted will continue to require commitment, diligence and execution of a well designed comprehensive strategy by the Pennsylvania Department of Environmental Protection.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0217.1.001.010

Author Name: Pozgar David

Organization: Logan Township

Pennsylvania must adequately address the issues raised by EPA within the PA Watershed Implementation Plan to avoid the EPA Backstop provisions.

Pennsylvania needs to work closely with the EPA to assure that the issues identified in the 8-page document, EPA Comments on the Pennsylvania Draft Phase I Watershed Implementation Plan, are addressed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0229-cp.001.002

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Chamber & CREDC's Environmental & Energy Committee has fully vetted EPA's backstop TMDL and has studied the Chesapeake Bay issue for several years. The committee believes that Pennsylvania's Department of Environmental Protection's Phase 1 Watershed Implementation Plan (WIP) is adequate to address the concerns of EPA regarding Pennsylvania's responsibility to the Chesapeake Bay.

Response

See response to Comment No. 0067.1.001.017

Comment ID 0249.1.001.009

Author Name: Mixell John

Organization: Fort Littleton Wastewater

COMMENTS FOR PENNSYLVANIA WATERSHED IMPLEMENTATION PLAN

Pennsylvania must adequately address the issues raised by EPA within the PA Watershed Implementation Plan to avoid the EPA Backstop provisions.

Pennsylvania needs to work closely with the EPA to assure that the issues identified in the 8-page document, EPA Comments on the Pennsylvania Draft Phase I Watershed Implementation Plan, are addressed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0260.1.001.008

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

PMAA recognizes the difficulty in achieving timely compliance from the non-point source sectors. We encourage EPA and the states to work together to develop methodologies for these sectors that will merge both voluntary and mandatory requirements to allow reductions to be met in a scheduled timeframe. These methodologies should be delineated to the fullest extent possible in the final WIP submission of each state and the final TMDL from EPA.

In particular, EPA should recognize the existing statutory and regulatory authority that DEP has through the Pennsylvania Clean Streams Law. This compliance tool seems to be totally overlooked by EPA in their comments to the Pennsylvania WIP. EPA should work with DEP so that all inspection, compliance, and/or enforcement options available under this Act are fully incorporated in the WIP, including specific provisions for the successful implementation of activities that ensure compliance from all non-point source sectors.

Response

Please refer to response to comment 0228.1.001.002

Comment ID 0261-cp.001.001

Author Name: Fleischmann B.

Organization:

My comments mainly have to do with Wastewater Treatment Plants. The Municipal Planning Code of PA calls for all land uses in each municipality, unless there is a cooperative agreement through joint or regional planning efforts. Many of the municipal zoning ordinances allow for higher density development (scattered throughout the landscape) if public sewer is provided. Instead of planning for and maintaining sewage infrastructure near urban areas at a reasonable growth rate, the municipalities within our state continue to react with Act 537 plans or sewer modules for applicants with sewage "needs" for new development, while ignoring actual failing systems that need more immediate attention. If we do not address the zoning ordinances that are currently on the books, the property owners will continue to have expectations of public infrastructure to accommodate their land development plans.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0269.1.001.009

Author Name: Mixell John

Organization: Forbes Road School District

COMMENTS FOR PENNSYLVANIA WATERSHED IMPLEMENTATION PLAN

Pennsylvania must adequately address the issues raised by EPA within the PA Watershed Implementation Plan to avoid the EPA Backstop provisions.

Pennsylvania needs to work closely with the EPA to assure that the issues identified in the 8-page document, EPA Comments on the Pennsylvania Draft Phase I Watershed Implementation Plan, are addressed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0378.1.001.009

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

A viable approach to stormwater management that recognizes Pennsylvania's unique governmental structure is imperative.

Pennsylvania has a local governmental structure that is not like many states, and any approach that is aimed at addressing local sources of nutrients and sediments must be cognizant of, and be framed to work within, that governmental structure.

Urban and stormwater is a case in point.

EPA has criticized the Pennsylvania WIP for failure to expand the so-called MS4 program to seek stormwater control via imposition of limitations and requirements in NPDES permits issued to municipalities and municipal authorities that operate storm sewer systems. EPA's fixation on the MS4 program, to the exclusion of other approaches, demonstrates a fundamental misunderstanding of what such storm sewer system operators can and cannot do.

In many if not most cases, stormwater systems are not operated by units of general government, but rather by municipal authorities. Such authorities have limited powers to finance, construe and implement infrastructure projects,

but they do not possess general police powers, land use control authority, or other legal tools to regulate the sources of nutrients or sediment that may become entrained in and flow as part of stormwater entering their sewer lines. Moreover, under the Pennsylvania Constitution Article III, §31, municipal authorities do not have general taxation powers, and can only establish fees and charges to pay for services provided by the infrastructure they operate.

Recognizing this situation, Pennsylvania's approach to addressing stormwater must proceed in a different direction, combining the authorities contained in different programs to work on the ultimate problem. For this reason, the Pennsylvania WIP relies on the combination of (i) county-adopted watershed stormwater management plans prepared under the Pennsylvania Stormwater Management Act; (ii) statutory-mandates that municipalities adopt and administer ordinances that implement those watershed stormwater management plans; and (iii) the state level Ch. 102 erosion and sedimentation control permitting program, including its mandates for post-construction stormwater management plans. In our view, this is the only viable approach given Pennsylvania's governmental structure - and EPA's apparent insistence (despite the law) to drive use of the MS4 program is akin to assuming that the hammer in hand is the only tool in the tool box, and therefore must be used to drive a screw. EPA needs to take its blinders off, and stop just looking at the Clean Water Act as if it were the only tool kit. The Pennsylvania WIP points to other tool kits, and in many cases those tools are the only ones that hold real promise of achieving effective results.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. See Section 8 of the TMDL for discussion. EPA is establishing the Chesapeake Bay TMDL in order to attain water quality standards in the Bay pursuant to its authority under the Clean Water Act (CWA). That CWA authority includes the NPDES program. EPA has no authority under Pennsylvania regulations or state laws to ensure compliance with TMDL reductions. Since PADEP did not provide sufficient reasonable assurance in the draft WIP document that its reductions will be met using its approach, EPA identified additional reasonable assurance for stormwater pursuant to its authority under the CWA and more specifically, identified additional authority under the NPDES permit program, such as those issued to MS4s. While PA has many viable state programs, not all of them have been robustly implemented. For example, PA's Stormwater Management Act (Act 167) is a cornerstone of PA's stormwater program. Although many counties have adopted Act 167 Watershed Plans, the necessary ordinances that are required to implement the plans have not yet been adopted by all municipalities within that county. Likewise, while PA has just adopted revised regulations (25 PA Code Chapter 102), the programs to implement that authority are just developing. Finally, EPA inspections in PA have revealed some inconsistencies in state enforcement and regulatory compliance. While PA provided improved implementation actions and detail in its final WIP, especially for the agriculture program, EPA has determined that PA did not provide sufficient assurance regarding implementation of its stormwater programs. As a result, EPA included stormwater allocations for PA based on backstop assumptions about tighter controls on federally permitted point sources of pollution in the final TMDL. See Section 8 of the TMDL for a more detailed discussion.

Comment ID 0390-cp.001.009

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

COMMENTS FOR PENNSYLVANIA WATERSHED IMPLEMENTATION PLAN

Pennsylvania must adequately address the issues raised by EPA within the PA Watershed Implementation Plan to avoid the EPA Backstop provisions.

Pennsylvania needs to work closely with the EPA to assure that the issues identified in the 8-page document, EPA Comments on the Pennsylvania Draft Phase I Watershed Implementation Plan, are addressed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0409.1.001.003

Author Name: Salada Ian

Organization: Penn State University

f. We agree with Section 10 of Pennsylvania's Watershed Implementation Plan:

i. Aggregate onlot systems in the Chesapeake Bay watershed contributed relatively minor total nitrogen load both individually and collectively.

ii. The cost/benefit of controlling onsite wastewater systems is not justifiable.

iii. Section 10 states "The Commonwealth of Pennsylvania at this time will not be developing or implementing a strategy to ensure that onsite wastewater systems require denitrification solely to provide nutrient reduction for the nutrient loadings to the Chesapeake Bay".

Response

EPA agrees with the commenter that onlot systems are a minor source of nitrogen loading from Pennsylvania, and EPA did not require denitrification controls for onsite wastewater systems in the draft TMDL or in the final TMDL.

Comment ID 0412.1.001.006

Author Name: Lohr Matthew

Organization: Virginia Dept. of Agriculture and Consumer Services

The Commonwealth is currently attempting to adequately address gaps in funding, staff resources, legislative authority, and provide reasonable assurance in the Draft Phase I WIP.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0432.1.001.010

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

3. EPA provided inadequate administrative and technical assistance in development of Pennsylvania's WIP.

Throughout the past several months, DEP and Pennsylvania stakeholders have been meeting in an active and earnest effort to devise its WIP. Critical to Pennsylvania's ability to make reasoned decisions on proposals for programs to be incorporated in the WIP was the ability of stakeholders to analyze the impacts of various proposals in the Model.

Contrary to what stakeholders were led to believe, EPA has been made little effort so far to provide the type of technical assistance needed to perform this analysis in a timely or meaningful way. Stakeholders have been virtually making blind guesses in predicting the mix of feasible best management practices that will have the greatest environmental returns in EPA's Chesapeake Bay Model. And the period of turnaround for measuring the Model's effects of stakeholders' blind guesses has been unsatisfactorily slow. Pennsylvania and the Bay states continue to be largely left in the dark in their effort to devise an environmentally sound and economically viable implementation plan through analysis of the Model.

4. EPA has provided no meaningful guidance or constructive feedback in response to proposals offered in the course of WIP development.

EPA has provided little meaningful or concrete feedback to more specific measures for pollution control within Pennsylvania's agricultural sectors that DEP has proactively proposed and offered for consideration. And what little feedback DEP has received has been predominantly negative, and largely devoid of practical or feasible recommendations to address EPA's concerns.

Response

EPA has worked side-by-side with its jurisdiction partners in developing the TMDL. EPA assigned a jurisdictional lead to each jurisdiction as a main point of contact. EPA has provided extensive hands-on assistance to the states and the District in the development of their Watershed Implementation Plans through a number of face-to-face meetings as well as Chesapeake Bay Program committees such as the Water Quality Goal Implementation Committee (WQGIT), as well other stakeholder meetings and webinars. EPA has worked closely with each jurisdiction to provide constructive feedback on the draft Phase I WIPs up to the final document submission. Evidence of the communications is reflected in the improvements seen in the final submissions for each jurisdiction. A list of meetings involving EPA and the jurisdictions are included in Appendix C of the final TMDL report.

Comment ID 0432.1.001.013

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

7. EPA's preoccupation with legal compliance of farms is misplaced and will not efficiently manage limited financial resources.

EPA seems to be unduly insisting that aggressive regulatory and enforcement measures to invoke legal compliance by all Pennsylvania farms be a major component of Pennsylvania's WIP. While we are not advocating that Pennsylvania farms be operated in a manner that does not achieve baseline compliance, we have significant concerns over the extreme focus EPA is giving to this facet of the WIP and the detrimental effects that this focus will have in diverting state and federal resources from proven programs of nutrient and sediment reduction on farms.

EPA has not offered any meaningful analysis of the effect of full achievement of legal compliance on farms will have in attaining nutrient and sediment reduction in the Chesapeake Bay. Our analysis of the Chesapeake Bay Model's measured effect of full legal compliance by all Pennsylvania farms would indicate that full compliance would only attain modest reduction in nitrogen, phosphorus and sediment pollution.

Response

The comments seems to make the point that full compliance with existing state regulations on farms is not sufficient to have significant improvement in the nitrogen, phosphorous and sediment loads. If this is the case, it would seem clear that more controls would be needed. EPA has left it to the states to determine how those controls will be achieved, but EPA insists that the plan demonstrate that those controls have a high level of assurance that the controls will be installed.

Comment ID 0432.1.001.014

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

While we do have concerns with DEP's most recent proposals to ramp up investigation and regulatory enforcement activities in Pennsylvania's agricultural sector, we are troubled by the extreme degree of disapproval expressed by EPA in response. In the abstract, the focus of DEP's plan to direct more financial and administrative resources to those stream areas considered to be most seriously impacted from agricultural activity seems to make basic sense. In its response, EPA failed to offer any constructive suggestions to address its criticism of DEP's approach.

Response

See response to Comment No. 0432.1.001.010. Also, fortunately, the extended discussions between EPA and the states have paid off. That is, the final state WIPs are much improved from the draft WIPs. Therefore, EPA has chosen to reduce or remove the backstop allocations that were in the draft.

Comment ID 0432.1.001.018

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

Pennsylvania's proposed WIP is the product of a reasonable and good-faith effort made jointly by the Commonwealth and Pennsylvania's public and sectors to devise a meaningful and effective game plan for future nutrient and sediment reduction in the Bay watershed. Especially given the severe time constraints to develop and submit the Phase 1 WIP and the serious lack of guidance or meaningful assistance provided by federal officials in its development, we believe Pennsylvania's WIP will effectively move Pennsylvania toward the nutrient and sediment reduction goals that EPA would like to see accomplished by 2025. And we and other stakeholders who assisted in the WIPs development sincerely believe that it can be fully implemented without bankrupting public coffers and farm families.

Response

See response to Comment No. 0432.1.001.010

Comment ID 0432.1.001.021

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

we are disappointed by EPA's initial reaction to Pennsylvania's proposed WIP, and hope that EPA will act in the future more in the spirit of partnership with Pennsylvania, will take a less onerous approach in administration of pollution control in the Bay, and will provide the type of constructive and technical assistance that states should have had in the first place in further revision of state WIPs.

Response

See response to Comment No. 0545.1.001.005

Comment ID 0467.1.001.025

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

WHEREAS EPA, as part of the Chesapeake Bay Total Maximum Daily Load (TMDL) development process, required Chesapeake Bay Jurisdictions, including Pennsylvania, to submit watershed implementation plans (WIP) describing how they would meet their respective loading reductions under the Chesapeake Bay TMDL.

WHEREAS, DEP submitted a WIP, which was based on DEP agreed upon loading limits of 6mg/l TN and 0.8 mg/l TP at design flow for significant point sources, of which the Authority's AWTF is the largest.

WHEREAS EPA believes that DEP's WIP does not provide reasonable assurance that DEP will meet its loading reduction requirements under the Chesapeake Bay TMDL and has therefore proposed more stringent discharge limits in Pennsylvania based on EPA's definition of Limit of Technology (3 mg/l TN and 0.1 mg/l TP at design flow). in the draft Chesapeake Bay TMDL.

Response

No response required.

Comment ID 0467.1.001.028

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

The WIP fails to identify the specific activities that will be implemented to reduce nutrient and sediment loading from the agricultural sector. What exactly will be done to assure agricultural compliance? Section 8, which addresses Agricultural, is largely a recitation of existing practices that have proven to be unsuccessful. Also, the cost to Pennsylvania and the cost to each sector is not identified to implement the WIP. Any discussion of costs should include a discussion of funding sources and needs, which is missing from the WIP.

The draft WIP claims that Pennsylvania is "making progress" toward its assigned loading reductions. What steps is the Department taking to ensure that EPA approves the draft WIP and abandons its efforts to implement the "backstop allocation" approach?

Does the Department intend to mandate more stringent discharge limitations in NPDES permits (i.e., limit of technology) even if EPA retains the "backstop allocation" approach in the final Chesapeake Bay TMDL?

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0467.1.001.030

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 7 New Technology and Nutrient Trading

The Department is correct that failures in manure management result in greater discharges to the Bay and that regional digesters, some of which could be co-located at existing point source sites, would reduce nitrogen and phosphorus if appropriate BNR or ENR technology is applied. It should be noted, however, that the nutrient removal technology in regional digesters is likely the same as that required of every point source that chooses to meet its cap load through treatment. Further, DEP must assure that the regional digester projects have a source of funding that is independent from funding sources that might be available to the point sources. If separate funding is not implemented, then point sources and regional digesters will compete for the same pool of money.

The Department is advocating the use of advanced technologies to meet the Commonwealth's loading reductions. The Department needs to discuss possible funding of these technologies with Pennsylvania's legislature, EPA, and other federal sources?

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0467.1.001.034

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 49 Current programs and capacity

If it is correct as stated that it is unlawful under the Clean Streams Law to discharge pollutants to surface or groundwater except as allowed by regulation, then the DEP's enforcement for agricultural operations must be lacking. This conclusion is obvious given the large proportions of nitrogen, phosphorus and sediment coming from this sector. Until DEP assures that this sector is in full compliance with the Clean Stream Law, other sectors should not be tasked with meeting tighter standards than those set forth in the CBTS.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0467.1.001.035

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 50 Trading

How does the Department intend to address EPA's concerns regarding the Department's trading program as expressed in EPA's Comment Document on Pennsylvania's Draft WIP, dated September 27, 2010?

Page 52 Limit of Technology

Does the Department agree with EPA that the respective limits of technology for nitrogen and phosphorus are 3 mg/l and 0.1 mg/l?

Page 59 Agriculture

The Department has regulatory authority under the Clean Streams Law to ensure that the non-point source sector meets its loading reduction obligations under the Chesapeake Bay TMDL. The Department should state that it will use this authority to ensure that the non-point source reductions in the Chesapeake Bay TMDL are met.

Page 61 DEP Regulations for Farms

What action will the Department take under 25 Pa. Code § 91.36 to ensure that all regulatory requirements for nutrient management for manure storage and land application are undertaken?

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0467.1.001.037

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 64 Staffing Considerations - Regulatory Programs

The Department asserts that: "Pennsylvania's strength in the environmental regulation of agriculture is the laws and regulations currently in place." However, the draft WIP states that Pennsylvania cannot ensure compliance with these laws or regulations because of staffing issues. Such a position is unacceptable, as compliance is a concern raised by EPA in its September 27, 2010 comment letter to the Department regarding the draft WIP ("...there appears to be a high-level of non-compliance with existing state programs for farm conservation and nutrient management plans" (see p.3). Pennsylvania must ensure that it has adequate resources to address the regulation of non-point sources, such as agriculture.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0467.1.001.039

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 97 Onsite Wastewater

There is little likelihood that significant reductions in nitrogen discharged from on lot disposal systems will be achieved even if extensive efforts are made to replace existing systems with ones believed to be capable of nitrogen reduction due to relatively low groundwater temperatures in much of the Pennsylvania and due to the lack of operations and maintenance that will be practiced. The only significant solution to reduction of nitrogen discharge from OLDS will be through their abandonment in favor of connection to public sewers. Currently an offset of 25 pounds per year of nitrogen is provided to certain qualifying OLDS when connected to a public sewer. This, alone, is not sufficient to cause public sewer systems to seek to construct new sewer systems. If reduction in this segment is required, then incentives should be implemented.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0468.1.001.009

Author Name: Harry Jennifer

Organization: PennAg Industries Association

8. We support the State focusing on the Core 4 practices while exploring alternative technologies. Alternative technologies must remain an option to consider - not a requirement on new and expansion projects. EPA must recognize the tremendous cost associated with some of the technologies and the difficulties in obtaining financing to cash flow the project.

9. We support the State and USDA-NRCS expanding the projects and practices that can be covered to gain on overall improvement to water quality.

Response

Nutrient and sediment loads from agriculture, across the watershed, have been reduced, but not enough to achieve the reduction goals to restore water quality in the Chesapeake Bay. In addition, voluntary efforts, over the past 25 years, have not incentivized the widespread adoption of conservation practices across the agricultural landscape. Farmers who were willing to implement

conservation practices on their lands under this voluntary system, for the most part, have done so. Hence, the nutrient and sediment reductions attributed to conservation practices on agricultural lands to date. According to a recent NRCS study, cultivated cropland represents only about 10 percent of the land base in the Chesapeake Bay watershed. With the current level of conservation treatment, cultivated cropland delivers a disproportionate amount of sediment and nutrients to rivers and streams and ultimately to the Bay. Of the total loads delivered to rivers and streams from all sources, cultivated cropland is the source for 25 percent of the sediment, 27.5 percent of the phosphorus, and 32 percent of the nitrogen. There is significant room for improvement in reducing the amount of nutrients and sediments from agricultural lands. The goal with the TMDL is to improve federal, state and local regulatory frameworks to provide new types of incentives for the adoption of these cost-effective BMPs to further reduce the pollutants running off of agricultural lands. Pa.'s revised WIP outlines using a targeted watershed approach to implement conservation planning and practices in those agricultural watersheds having the greatest impact to the Bay.

Comment ID 0473.1.001.005

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

Pennsylvania will shortly submit a Final Phase 1 Chesapeake Watershed Implementation Plan (WIP) that will provide the necessary reasonable assurance, separate and apart from the TMDL, that the Commonwealth's nutrient and sediment allocations for the Chesapeake Bay will be met. This WIP is being developed with the input of over 150 stakeholders and reflects an equitable cost-effective approach to meeting Pennsylvania's allocations.

Response

Please see reponse to comment # 0067.1.001.009.

Comment ID 0473.1.001.014

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

- Pennsylvania is concerned with any mandatory requirement for a precision feed management program for dairy operations of any size.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. The draft TMDL did include backstop allocations that included stringent load levels for agriculture. Since the Pa WIP is much improved the backsto allocations

have been reduced or removed. Please see section 8 for a full description of EPA assessment of the state WIPs and final allocations.

Comment ID 0473.1.001.018

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

Pennsylvania remains a committed partner in the restoration of the Chesapeake Bay. Given the appropriate flexibility, time, and tools, Pennsylvania is confident that we can help develop a WIP that will make sense to Pennsylvania stakeholders and restore Pennsylvania's local waters and the Chesapeake Bay. The Final Chesapeake Bay TMDL should be consistent with Pennsylvania's final WIP submission and provide gross WLAs and gross LAs for each major basin in the state.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0502.1.001.003

Author Name: Frank Stephen

Organization: RRI Energy

Comment 1. Wastewater Facilities.

According to the draft WIP, a Compliance Plan for Industrial Waste Dischargers to the Chesapeake Bay was developed in January 2010 after holding three voluntary meetings with the 30 existing significant industrial dischargers. The plan for these existing facilities was to keep them at their current load plus a 10 percent margin for future growth. The draft WIP also includes 183 significant domestic wastewater facilities. The 183 significant domestic wastewater facilities and 30 industrial facilities are expected to comply by 2017.

Significant point sources are defined as domestic wastewater treatment plants (WWTPs) with a design flow of 0.4 million gallons per day (mgd) or greater or industrial discharges with greater than either 75 lbs/day of Total Nitrogen (TN) or 25 lbs/day Total Phosphorus (TP).

We are concerned that the list of significant dischargers has been prematurely determined to be complete or final leaving other existing significant dischargers with insufficient wasteload allocations (WLAs).

As described in the draft WIP, nutrient loadings can be associated with many sources (e.g., deposition, storm water, air pollution control devices, landfills, etc.). Therefore, to ensure the equitable distribution of waste load allocations, we suggest that the DEP collect monitoring data from all major industrial point sources to better ensure the list of significant

point sources is complete.

We recommend including a reserve of WLAs in the WIP to provide some flexibility in the event that other existing significant point sources are identified as the TMDL is implemented in Phases II and III.

As indicated by the DEP in the draft WIP, the short timeframe allotted for development of the WIP did not allow for full analysis of all the comments provided by the workgroups, and the DEP plans to continue to work with these groups, and all interested individuals, on further analysis of ideas and suggestions. RRI Energy looks forward to working with the DEP.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0502.1.001.005

Author Name: Frank Stephen

Organization: RRI Energy

Comment 3. Industrial Storm Water.

As indicated in the draft WIP, an up-to-date list of industrial stormwater permitted facilities and associated outfall locations was prepared in April 2010 and was used to complete the industrial stormwater analysis. For consistency with other TMDLs developed in Pennsylvania, each outfall was considered to have an estimated drainage area of 1 acre.

The up-to-date list appears to have been developed using only NPDES General Permits. The list of industrial stormwater permitted facilities fails to include stormwater outfalls that are included in individual NPDES permits and as identified in stormwater Module 12 of NPDES applications. As a result, the number of permits and associated drainage acreage are significantly under estimated.

As one example, Clearfield County was identified as having 25 Permits consisting of 36 drainage acres. As detailed in Shawville's 2005 NPDES Renewal Application, five stormwater outfalls with a total drainage area of 121.4 acres are present at the station. This is more than the drainage area identified for the entire County. In addition, the drainage area for each Shawville stormwater outfall is substantially larger than the 1 acre estimated drainage area used for each outfall in the draft WIP. Any WLA derived from this data for stormwater discharges at Shawville or other facilities would result in a WLA that would be impossible to meet with any technology and would require elimination of the stormwater discharge or purchase of credits.

Comment 4. Significant Industrial Waste Discharges.

The Shawville Generating Station is identified as an insignificant point source in Appendix Q-1 and Q-2 of the draft Bay TMDL and does not have a sufficient waste load allocation (WLA) for existing discharges.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0689.1.001.034

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

COMMENTS TO DRAFT PENNSYLVANIA WATERSHED IMPLEMENTATION PLAN ON BEHALF OF THE CAPITAL REGION COUNCIL OF GOVERNMENTS TMDL WORK GROUP

p.3 The draft WIP asserts that Pennsylvania is "making progress" toward its assigned loading reductions. Yet, EPA has deemed the draft WIP to be insufficient. What steps are or should the Department take to ensure that EPA approves the WIP and abandons its efforts to implement its "backstop allocation" approach as set forth in the draft Chesapeake Bay TMDL?

p.4 The Department is advocating the use of advanced technologies to meet the Commonwealth's loading reductions. Has the Department discussed possible funding of these technologies with Pennsylvania's legislature, EPA or other federal sources?

p.5-6 The Department's Compliance Plan regarding non-point source reduction did not meet EPA's "reasonable assurance" evaluation. Setting aside the legal issues regarding EPA's "reasonable assurance" standard, what does the Department need to do to ensure that it provides EPA with "reasonable assurance" that the non-point source sector will meet its loading reduction obligations?

p.9 Does the Department agree with EPA's apparent interpretation that: (1) EPA has sufficient legal authority to develop the Chesapeake Bay TMDL; and (2) Pennsylvania, with no impaired streams feeding into the Chesapeake Bay, must nonetheless comply with the requirements of the Chesapeake Bay TMDL?

p.15 Did EPA provide the Department with sufficient time to develop its Phase I WIP?

p.16 Does the Department intend to mandate more stringent discharge limitations in municipal wastewater treatment plant permits (i.e., limit of technology) even if EPA insists on retaining the "backstop allocation" approach in the final Chesapeake Bay TMDL?

p.50 In EPA's September 27, 2010 comment document to the Department regarding the draft WIP, EPA suggested that Pennsylvania's Trading Program is not totally satisfactory. How does the Department intend on addressing EPA's concerns and how will this impact the Department's trading program and its strategy on accounting for future growth in the Commonwealth? Moreover, it is critical that DEP obtain the most current delivery ratio data from EPA and incorporate such information into its WIP because trading will be affected by the delivery ratios used in the WIP.

p.52 Does the Department agree with EPA that the limit of technology for nitrogen and phosphorus is 3 mg/l and 0.1 mg/l, respectively?

p.59 The Department has sufficient regulatory authority under the Clean Streams Law to ensure that the non-point source sector meets its loading reduction obligations under the Chesapeake Bay TMDL and the Department should conclusively state that it will use this authority to ensure that the non-point source reductions in the Chesapeake Bay TMDL are met.

p.60 Pennsylvania should further explain how its regulations on Erosion and Sedimentation Control, specifically its new Chapter 102 regulations, which become effective on November 19, 2010, will be used to address the loading reduction requirements of the Chesapeake Bay TMDL.

p.61 Will the Department take legal action under 25 Pa. Code § 91.36 to ensure that all regulatory requirements for nutrient management for manure storage and land application is undertaken?

p.64 In its draft WIP, the Department asserts that: "Pennsylvania's strength in the environmental regulation of agriculture is the laws and regulations currently in place." However, to subsequently concede that Pennsylvania cannot ensure compliance with these laws or regulations because of staffing issues is unacceptable, as compliance is a concern raised by EPA in its September 27, 2010 comment letter to the Department regarding the draft WIP (" ... there appears to be a high-level of non-compliance with existing state programs for farm conservation and nutrient management plans" (see p.3) and "Pennsylvania mentioned that its biggest challenge was ensuring compliance with existing regulations...EPA needs more detail on how many farms can be reached, by how many staff, within what timeframe and the resulting nutrient and sediment reductions." (see p.4).)

p.72 The Department must engage EPA regarding the implementation of BMPs between versions 4.3 and 5.3 of EPA's Chesapeake Bay Watershed Model.

p.128 The Department's discussion on legacy sediment is a good first step in addressing the source of nutrients which the Department asserts, that "stream corridor erosion from breached millpond reservoirs - is a substantial source of suspended (i.e., fine grained) sediments and nutrients within the Chesapeake Bay Watershed." How do the Department and EPA intend to address this issue in the context of the Chesapeake Bay TMDL?

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0723.001.001

Author Name: Barton Marylou

Organization: Lancaster County Clean Water Consortium

The Lancaster County Clean Water Consortium ("LCCWC") believes that the Pennsylvania Watershed Implementation Plan could be significantly strengthened by emphasizing solution-oriented approaches to the underlying TMDL causes.

The LCCWC offers the following specific examples to strengthen DEP's Watershed Implementation Plan. The first example is a solution-oriented MS4's example of a watershed overlay, holistic MS4 approach and could serve as the pilot project to demonstrate its TMDL pollutant reduction results .

The Lancaster County Clean Water Consortium proposes to facilitate county-wide compliance with new federal regulations for water quality in the Chesapeake Bay by establishing a resource organization known as the Lancaster County Clean Water Consortium . The Consortium, organized in 2010, will serve Lancaster stakeholders by proactively initiating compliance with stringent pollution reduction standards proposed in the Pennsylvania Chesapeake Watershed Implementation Plan. The goal of the Consortium is to enable the cooperative implementation of water quality and quantity projects between federal, state, and local governments, watershed associations, watershed residents, and community stakeholders.

To encourage the utilization of the most cost-effective proven and/or emerging technologies, the Consortium is in the process of securing funds to obtain technical assistance in 2011 to: "

Develop a coordinated, watershed overlay Municipal Separate Storm Sewer System (MS4) which will support the Model Stormwater Ordinance under development by the Lancaster County Planning Commission and design a pilot stream bank restoration project that will take into consideration the impact of point-source outfalls and surrounding land uses; "

Provide detailed cost estimates to assist in the evaluation, the selection, and the funding of a variety of agricultural best management practices and nutrient reduction techniques .

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0723.001.003

Author Name: Barton Marylou

Organization: Lancaster County Clean Water Consortium

Solutions: Projects and People

Lancaster County has been identified as one of the top three contributors of agricultural pollutants in the Chesapeake Bay. While early introduction of agricultural best management practices have accomplished some reductions in nitrogen, phosphorous and sediment loads, much remains to be done.

The success of the Lancaster County's approach will depend on the ability to implement the commitments and achieve the required nutrient and sediment reductions described in the Commonwealth's Watershed Implementation Plan (WIP). If the goals of the state WIP are not achievable, the repercussions of USEPA consequences will affect all source

sectors in the county (and state), especially within the agricultural sector. Lancaster County consists of a unique farming community that includes a preponderance of small farms beleaguered by marginal operating economics. A successful program must be carefully crafted to encourage participation without undue economic hardship, and must also address how to involve the large numbers of independent farms in order to provide the information, leadership, education, and training necessary for successfully implementing nutrient load-reducing practices. There are also unique considerations that apply to plain-sect farmers; some programs may have varying rates of success within the distinct local communities that dominate each of the county's watershed basins. The Chesapeake Bay Program, through data collection and modeling, has generated a considerable amount of information related to efficiencies and costs of implementing agricultural management practices, but Pennsylvania is a state where one-size does not fit all. The far-reaching implications of the WIP necessitate a close examination of the agricultural strategies that are best for Pennsylvania and Lancaster County. This makes "the Development of a Tool to Estimate the Costs to Meet the Nutrient and Sediment Reduction Goals" critical for the state and the county to preserve the county's water quality goals. In other words, identifying and implementing the programs and practices that give the best nutrient and sediment reduction for the dollars spent is essential for success.

In anticipation of more stringent EPA regulations, Lancaster County must proactively evaluate the best combination of agricultural management practices, storm water management systems, point source, and legacy sediment stream restoration projects to maximize the TDML reductions in a cost effective manner. With the information gathered in the three programs proposed for funding year 2011, the Consortium will be able to help municipalities, landowners, and watershed groups prioritize their implementation projects and help them secure funds. This model of jurisdiction (County) wide cost evaluation and coordinate stormwater protocols Consortium model is replicable in any County and the base costs for project implementation will be of use in other parts of the Chesapeake Bay Watershed and Pennsylvania for many years.

The Foundation plans to support the ongoing operations of the Consortium through: "

Annual financial contributions from 5 classes of members:

- o Municipalities & Authorities;
- o Non-profits (e.g. Lancaster Farmland Trust, Watershed Alliances, Trout Unlimited Chapters);
- o Agriculture (landowners and charitable contributions from agri-business);
- o Business (local corporations & developers);
- o Individuals that share a commitment to environmental stewardship and clean water initiatives."

Administration fees from planning grants and project implementation grants." Sponsorship from individuals and firms." Contributions from developers and landowners to offset MS4 or water quality impacts.

Solutions: Funding

Nutrient and sediment reduction in the Chesapeake Bay is a priority for DEP funding. This proposal will result in the information necessary to meet Lancaster County's assigned goals as well as for all other impacted counties within the Commonwealth. The relative costs of agricultural nutrient control practices and the programs that will be needed to implement them need to be better understood in order to set priorities for efficient allocation of public funding and promote overall pollution reduction cost-effectiveness. On one hand, it is important that investigations into the identification of "preferred programs and practices" involve an independent assessment of the programs and practices tentatively identified in the Commonwealth's draft WIP. It is also important to take a fresh look into new, emerging, and innovative ideas drawn from a broad knowledge base comprising the latest findings of academic experts, governmental

agencies, farmers, and practitioners engaged in the research, management, and operations of the state and County farming community. Again, this makes funding of the "Methods and Costs to Reduce Loads", "Identification of Technology and Innovative BMPs", and "Recommendations for Preferred Agricultural Programs" critical needs for immediate funding. Work on these projects will supply necessary information to make cost-effective decisions about designing and funding preferred programs that will provide the leadership necessary to achieve required water quality goals.

In addition to meeting the financial priorities of the Commonwealth and DEP, this proposal could save hundreds of thousands of dollars of public and private funds by eliminating the need for redundant studies, project plans and cost estimates. Lancaster County's progress toward reaching TMDLs for nutrient and sediment reduction will be enhanced through the coordinated efforts of the Consortium. By combining plans and strategies on a watershed basis, the Consortium will maximize every dollar spent on water quality projects. The limited grant preparation and administration capacity of County stakeholders will be supplemented by the Consortium staff and the deliverables will streamline and enhance quality proposals that are more likely able to secure coordinated multi-source funding. Our efforts will supplement the activities of the Lancaster County Conservation District and the Lancaster County Planning Commission by focusing on the Chesapeake Bay Nutrient Reduction programs, projects and milestone reporting.

The implementation of coordinated watershed restoration strategies and innovative demonstration projects will provide Lancaster County's urban, suburban and rural communities with a better quality of life as nutrient and sediment loadings are reduced in the county's rivers and streams via non-point municipal and agricultural run-off as well as sewage treatment plants and other point sources. The countywide WIPs will also demonstrate where and how the county can absorb more population growth while still keeping county waters clean for drinking, fishing and swimming.

The success of the Lancaster County's approach will depend on the ability to implement the commitments and achieve the required nutrient and sediment reductions described in the Commonwealth's Watershed Implementation Plan (WIP). If the goals of the state WIP are not achievable, the repercussions of USEPA consequences will affect all source sectors in the county (and state), especially within the agricultural sector. Lancaster County consists of a unique farming community that includes a preponderance of small farms beleaguered by marginal operating economics. A successful program must be carefully crafted to encourage participation without undue economic hardship, and must also address how to involve the large numbers of independent farms in order to provide the information, leadership, education, and training necessary for successfully implementing nutrient load-reducing practices. There are also unique considerations that apply to plain-sect farmers; some programs may have varying rates of success within the distinct local communities that dominate each of the county's watershed basins. The Chesapeake Bay Program, through data collection and modeling, has generated a considerable amount of information related to efficiencies and costs of implementing agricultural management practices, but Pennsylvania is a state where one-size does not fit all. The far-reaching implications of the WIP necessitate a close examination of the agricultural strategies that are best for Pennsylvania and Lancaster County. This makes funding for "the Development of a Tool to Estimate the Costs to Meet the Nutrient and Sediment Reduction Goals" critical for the state and the county to preserve the county's water quality goals. In other words, identifying and implementing the programs and practices that give us the best nutrient and sediment reduction for the dollars spent is essential for success.

MS4 Watershed Overlay Permit

Scope of Work To provide assurance that across Lancaster County, the most cost-effective and environmentally

sound implementation projects are undertaken, the Consortium would like to complete a pilot project analysis to integrate:

- MS4s
- BMP Installation
- Point Source discharges
- Legacy sediment - nutrient and stormwater credits

Coordinated MS4 Protocol and Little Chiques Creek Pilot Project Analysis - Develop a watershed or county-wide coordinated protocol with specific tools to assist Lancaster County municipalities in meeting MS4 requirements. This will include a template for addressing applicable TMDLs in addition to the six Minimum Control Measures (MCMs) required as part of PAG-13. Also included will be an evaluation of alternatives that may exceed the MCM requirements but would require individual permit approval. Alternative measures may be more cost effective with greater water quality benefits. Some of these alternative measures may involve regional coordination and multi-municipal efforts.

Approximately 40 miles of stream segments of Little Chiques will be analyzed including Main Stern, Brubaker and Back Run. Seven (7) representative reaches would be selected to obtain field data such as geo probes, nutrient analysis, storm water management - storage volume. One (1) location would include data intensive for credit trading purpose for nutrients and stormwater. The Mount Joy Borough and Mount Joy Borough Authority are committed to repairing the stream banks along the Little Chiques Creek in the borough park. An unusual aspect of this proposed project area is that part of the stormwater flows impacting the stream come from an industrial park in the Donegal Region Urban Growth Area. This development has a master-planned, integrated storm water system that serves over 400 acres of businesses that provide more than 3,000 jobs.

Objective: Develop stormwater permit protocols that are consistent with a new model Stormwater Ordinance developed by the Lancaster County Planning Commission.

Objective: Provide spatial and depth data. Useful for assessments in effort to reduce field work. Data can be used in rough estimate calculations for items 1-3 above.

Objective: Establish riparian buffers and restore disturbed areas along the Susquehanna river, Conestoga River, and smaller waterways.

Objective: Provide guidance to municipalities and watershed groups to support the requirement for comprehensive watershed analysis on all watershed areas prior to funding request for streambank projects.

1. Deliverable - MS4 watershed overlay compliance protocol for Lancaster County Municipalities

AG-13 Compliance - Multi-Municipal agreements to cooperatively meet MCM responsibilities more efficiently

- Public Outreach and Education
- Public Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff
- Post Construction Stormwater Management

-Pollution Prevention/ Good Housekeeping

Strategies to implement existing and develop new Watershed Implementation Plans (WIPs) to meet TMDL requirements

Individual Permit Alternatives

Develop watershed- based stormwater management/ water quality strategies

-Incorporate Act 167 plans, WIPs

-Multi-municipal coordination

Plan and implement Regional Stormwater Management/ Water Quality Facilities Develop framework for applying stormwater offsets to new development sites Develop incentives for participation in regional efforts identify long-term maintenance needs and responsibilities (including inspections) Negotiation with DEP/ EPA regarding application of alternative strategies Establish reliable protocol so that municipalities can be confident of compliance through alternative measures

2 . Deliverable: Comprehensive Report with Data for Pilot Project Report including:

-Mapping - LIDAR photography & Video -aerial logging photography

-Field Assessment: Ground Truthing, Photo documentation "

-Data collection (nitrogen, phosphorus, sediment)

-Determine locations of point source discharges

-Identify Restoration opportunities - Regional SWM, Wetlands, buffers, etc

-Integration of the two other studies - Resolution 215 (Program I) and the MS4 Protocols (Program III)

Summary-

The landowner and municipalities of Lancaster County will make better progress toward reaching TMDL for nutrient and sediment reduction through the coordinated efforts of the Consortium. By combining plans and strategies on a watershed basis, the Consortium will maximize every dollar spent on water quality projects. Resources will be concentrated to better deliver quality proposals and secure coordinated funding. Our efforts will build on the prior activities of the Lancaster County Conservation District and the Lancaster County Planning Commission by focusing on the Chesapeake Bay Nutrient Reduction programs and implementation projects.

The members of the Consortium recognize that stormwater runoff is best considered a valuable and reusable resource; not a waste that must be quickly moved away.

Stormwater can be effectively managed through properly constructed and maintained best management practices (BMPs) which remove pollutants, facilitate ground water recharge, provide base flow for surface waters, and protect and maintain the stability and environmental integrity of our ground and surface water resources. Managing increases of stormwater runoff to minimize pollutant loading includes reducing or avoiding the generation of new or increased sources of these pollutants as well as restoring and protecting the natural systems that are able to remove pollutants . These objectives can be accomplished through various BMPs such as stream buffers, vegetated systems, infiltration, and the reuse, recycle or collection of stormwater . Although stormwater runoff cannot be eliminated, the effects of

excess stormwater on our citizens and land and water resources are minimized through better management and treatment. Source: Growing Together, LIMC Comprehensive Plan

The Consortium is dedicated to utilizing the best, affordable technologies in a holistic Chesapeake Bay watershed approach. We wish to use existing plans but seek to streamline the permitting process for municipalities, farmers, and developers. Our focus will be to provide guidance and an awareness of the opportunities, not to obstruct the EPA process. Our intended service to our constituents is to clearly deliver what are the best and most cost-effective methods for accomplishing compliance with the forthcoming TMDL regulations.

II. TMDL Efficiency Tool

Scope of Work - The mission of the Consortium is to undertake a variety of efforts to develop a proactive, cohesive countywide strategy to restore the County's waterways and facilitate compliance with looming federal and state regulations intended to clean up the Chesapeake Bay.

A. Objective/Work Element - Estimate the cost to meet the agricultural source nutrient reduction goals of the Chesapeake Bay Program and agricultural allocations as defined in the State WIP, including but not limited to determining a cost per unit removed (nitrogen, phosphorus, or sediment) for best management practices that are considered or recommended. A panel of Academic Experts and consultants (experienced in development of the Chesapeake Bay model), will participate to obtain and confirm input data for the development of an assessment tool. Cost data, nutrient removal efficiencies, and implementation aspects will be checked or areas of concern identified. These data will be used to build a "reference" cost analysis, then will be refined based on the Pennsylvania-specific information our team will gather as we execute work elements B, C, and D.

1. Deliverable -Data management tool for composite scenario costing of the agricultural non-point-source portions for on-site pollution-reduction practices. This tool will utilize data collected and evaluated in elements B and C. In turn, the tool is in part utilized in the identification and evaluation of priority practices in element D.

2. Deliverable -Technical Memorandum outlining the following -baseline cost of compliance for the agricultural sector, evaluation of BMP cost and effectiveness ranges, and cost of WIP compliance for the Commonwealth's agricultural sector.

B. Objective/Work Element - Identify methods (including their costs) employed in other states to reduce loads from agricultural sources and make findings as to their applicability and impact to the agricultural community of this Commonwealth, particularly Lancaster County.

1. Deliverable-Conduct surveys and prepare technical report on other state WIP programs that will draw on readily available Chesapeake Bay Program and state-prepared documents, 2010 Draft WIP and 2010-2011 milestones, new technologies being demonstrated in other states (from Work Element C), and nutrient trading programs in other states; relative to the potential impact on future Lancaster County watershed allocations. A Technical Memorandum will be prepared to describe effective agricultural management practices employed outside the state.

C. Objective/Work Element - Evaluate the potential of new technology and innovative best management practices generally to address nutrient loads from agricultural sources. As part of the evaluation, the relative cost compared with

established technologies, practices and pro-grams will be developed . A panel of Academic Experts and an Agricultural Work Group will be used to identify and list technologies and innovative BMPs, including those established and those not widely established in the Commonwealth . The short listing process will consider any programs not otherwise selected, but currently being emphasized as part of the Chesapeake Bay Program or the Draft WIP as key initiatives for achieving the Commonwealth's nutrient reduction goals. The "short list" of promising and key initiative options will then be subjected to a planning-level evaluation based on demonstration site visits, data from manufacturers, published literature, or previous studies to the extent achievable within the timeframe of this study. Results will be summarized, with a focus on highlighting technologies or innovative BMPs with the potential to become a more significant component of the Lancaster County's watershed nutrient reduction strategy.

1 . Deliverable - A weighted set of screening criteria ; planning-level budgetary capital cost estimates ; 20-year life cycle cost estimates, cost effectiveness ratios (cost per pound of nutrient removed), "transactional" cost estimates (the cost of education, outreach and technical support to promote the technology or practice) and potential impact of the technology or practice on meeting overall nutrient removal goals. A Technical Memorandum will be prepared to summarize new technologies or innovative BMPs with potential to become a more significant component of the state's and county's nutrient reduction strategy.

D. Objective: Make recommendations for preferred programs for the agricultural community that overcome structural obstacles, encourage participation, accelerate bringing agricultural lands to baseline, facilitate the application of cost-effective technology and innovative best management practices and stimulate the generation of nutrient credits that are valued by point sources.

1 .Deliverable: Recommendations that set criteria for and identify preferred programs based on the costs and benefits, training and technical support requirements, regulatory and other obstacles, and relative incentives. A Technical Memorandum will be prepared to summarize: existing and innovative programs that are effective and are relevant to PA farm baseline requirements and information gathered, potential load reductions from meeting baseline compared to reductions needed to meet WIP requirements, and impact on availability for nutrient trading and will provide a list of preferred programs and basis for the list.

[See Page 8 of the original comment letter for a chart with Cost Assessment of Agricultural-NPS Reductions]

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.011

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The comments below have been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a full copy of this document.]

RE : Comments regarding Pennsylvania's draft Chesapeake Watershed Implementation Plan (WIP); September 2010

Dear Department of Environmental Protection:

The Chesapeake Bay Foundation (CBF), and its more than 200,000 members, thank the Department of Environmental Protection (DEP) for developing and implementing a thorough and open stakeholder process for constructing the Watershed Implementation Plan (WIP). We look forward to a finalized WIP that includes the Best Management Practices (BMPs) necessary to meet the reduced requirements, but also includes the implementation capacity to assure that all BMPs are put "on the ground." It must equitably require nutrient and sediment reductions from across all sectors. The WIP must outline the mechanisms, allocate programmatic and financial resources to meet the goals, to provide reasonable assurance that the WIP can be implemented, and to restore Pennsylvania's waters and the Chesapeake Bay.

As you know, the process of developing the Bay-wide Total Maximum Daily Load (TMDL) actually began over a decade ago with a series of federal judicial court decrees and settlement agreements over impaired water listings for many watershed states. See *American Littoral Society v. EPA*, Case No. 96-489 (E.D. April 9, 1997); *American Canoe v. EPA*, 54 F. Supp. 2d 621 (E.D. Va. 1999). On 28, 2000, the governors of Virginia, Maryland, and Pennsylvania, the chair of Chesapeake Bay Commission, and the Mayor of the District of Columbia responded to the various decrees and agreements by signing, with the EPA Administrator, Carol Browner, the Chesapeake 2000 Agreement which, among other things, committed to reduce nitrogen, phosphorus, and sediment sufficiently to remove the Bay and its tidal tributaries from the impaired waters lists by 2010.

In December 2003, the EPA, Pennsylvania, and the other Bay jurisdictions agreed to the nitrogen, phosphorus and sediment allocations that became the basis for "tributary strategies," designed to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. Pennsylvania completed their plan in 2004. [FN1] The failure to achieve the goal triggered the need to develop the Bay TMDL - a process in which Pennsylvania has been a full and cooperative participant.

Consistent with EPA's letters to the Principals' Staff Committee of September 11, 2008, November 4, 2009, and April 2, 2010, we strongly encourage the state to provide the necessary details in their WIP for how they will achieve the necessary reductions.

While Pennsylvania has made significant progress on some specific BMPs, the Commonwealth has demonstrated an inability to deliver on core programmatic items that are critical to meeting our water quality goals. This WIP is Pennsylvania's final opportunity to create a strategy for implementing the TMDL that is built by Pennsylvanians, for Pennsylvania, and utilizes the details and efficiencies that are specific to the Commonwealth. CBF urges you to consider the following recommendations to construct a credible strategy to accomplish the necessary reductions. Otherwise, the Federal Government will use its Clean Water Act authorities to attempt to accomplish those reductions in Pennsylvania. The outcomes of that approach will be far more difficult and less efficient for the Commonwealth and its citizens.

EPA's assessment of the Pennsylvania WIP was not good. The agency cited numerous "significant deficiencies" that if not corrected would result in EPA invoking under existing Clean Water Act authority several "backstop" measures.

[FN2]

A central criticism by EPA was the conclusion that Pennsylvania did not develop a credible and justifiable plan to reduce pollution from farms and urban and suburban developments. Without meaningful reductions from these sectors, Pennsylvania will not achieve the pollution reductions required by the TMDL.

The ramifications of failure, and the implementation of the "backstop" measures and the other consequences, detailed in EPA's December 29, 2009 letter to the Bay states, threaten to profoundly impact Pennsylvania communities, farmers and businesses in many significant ways.

In order to avoid EPA imposing the TMDL "backstops" and the other consequences, we strongly encourage DEP to fully integrate our comments and suggestions into the draft Phase I WIP.

Also, we incorporate by reference the comments submitted by CBF and the Choose Clean Water Coalition and Donald Boesch, et al. to Administrator Jacl on November 8, 2010, Docket no. EPA-R03-OW-2010-0736.

Key Recommended Improvements

Detailed in our comments herein are numerous recommendations for improve the draft WIP, particularly as it pertains to the reasonable assurance EPA summary, we believe that the draft WIP should incorporate the following:

Agriculture

- Describe a strategic plan containing binding commitments for the state reasonably achieves agriculture's load allocation within the TMDL's limit and which includes sufficient contingencies if specific program elements cannot be implemented.
- Inform all producers of regulatory and TMDL-related requirements.
- Implement outreach, financial assistance, and enforcement activities to assure widespread compliance.
- Identify overall funding need, and remaining funding gaps that must be filled by the Commonwealth.
- Pursue core conservation measures first on farms that have not yet participated; "the basics" provide cost effective nutrient reductions.
- Integrate state efforts on alternative manure technologies with compliance efforts on small and medium farms, especially dairies.
- Invest state and federal funds in forested buffers of at least 35 feet; narrower or grass buffers should not be a subsidized priority.
- Maximize landowners' use of CREP for buffers to stretch other limited cost share programs farther.
- Advocate to restore and grow the REAP tax credit program.
- Advocate to restore and rebuild conservation district capacity.
- Develop a comprehensive methodology to track voluntary BMPs that reduce nutrient and sediment loads, as well activities (by all sectors) that increase nutrient and sediment loads.
- Commit to timeline for establishing criteria for TMDL level compliance and "Safe Harbor."
- Commit to timeline for establishing a plan for achieving phosphorus balance over the long term and that is sufficiently protective of water quality.
- Strengthen the private sector's role in providing planning and design services to producers.
- Coordinate efforts effectively to ensure all cooperating agencies and organizations are working on goals that are consistent with the WIP.

Urban/Suburban Stormwater

- Abandon the proposed MS4 methodology in favor of the approach employed in the Christina River Basin Watershed Stormwater Source TMDL.
- Revise permit requirements so as to incorporate no net increase provis for new or expanded discharges of construction, post-construction stormwater runoff.
- Revise Act 167 to fully incorporate stormwater-related LA and WLA allocations and reduction goals and practices.
- Revise Pennsylvania's Stormwater Best Management Practices Manual as to incorporate the small storm hydrology management approach.
- Develop and advocate for innovative, but scientifically justifiable, approaches to address and fund stormwater retrofits and impervious surface reductions in existing urban and suburban areas, including the examination of an offsets program.
- Develop a meaningful MS4 permitting program which requires the adoption of low impact development (LID) requirements, tree and urban/suburban woodland protection ordinances, and retrofitting programs, amongst other improvements.
- Advocate for a ban on the sale of phosphorus-based fertilizers intende use by homeowners, except under certain conditions.

Resource Extraction

- Develop a process to track and quantify the impact of land-based Marl Shale-related drilling activities (e.g., pads, roads, clearing of forest, etc incorporate into the WIP.
- Revise permit requirements to incorporate no net increase provisions new or expanded discharges of construction, post-construction storm, runoff from extractive industries, including Marcellus Shale.

Onsite Wastewater

- Close the septic system "loop hole" regarding no net increases in pollutant loads from new or expanded sewage discharges and institute an offsets program.

Sector Specific Comments

Throughout various sections of the draft WIP, numerous aspects of DEP's programs, permits, and methodologies for incorporation into the TMDL and VVIP are presented. This presentation approach makes it difficult to provide meaningful comment via a sequential approach. Therefore, for ease of presentation we provide our comments below on a per sector basis and not sequentially as presented in the draft WIP.

However, in general, the issues and concerns we raised in our August 12, 2010 letter to the Pennsylvania WIP team members remain (Attachment A). [Comment Letter contains additional information in the form of an attachment. See original comment letter EPA-R03-OW-2010-0736-0732.1.] Specific comments for each sector are below.

Agriculture

CBF supports DEP's commitment to reducing pollution from agriculture in ways that strengthen the sector overall, and helping individual producers maintain or regain profitability in the process. A robust agricultural sector in Pennsylvania is critical to PA watersheds and the Bay. That developed land is the only sector still increasing pollution loads underscores

the fact that farms and forests are much preferable to development, especially the highly land-consumptive growth that has occurred in the region over the past several decades.

DEP and other Pennsylvania agencies and partners have developed and pursued creative approaches to achieving agricultural nutrient reductions to augment ongoing efforts. These initiatives include nutrient credit trading, state enhancements to CREP, innovative manure technologies, REAP transferrable tax credits, ARRA and PENNVEST nonpoint source projects, county assessments of voluntary BMIPs, and others. We are hopeful that a new tracking program for voluntary BMPs will reveal more progress made by producers that has not yet been credited to the agricultural community.

Nevertheless, PA farms continue to generate substantial nutrient and sediment loads, and sufficiently reducing this sector's loads is the most critical aspect of Pennsylvania's WIP. The final WIP must clearly outline a strategic plan for agriculture that includes specific commitments of technical and financial resources with measurable goals and timelines. The draft WIP for agriculture not contain sufficient detail to provide reasonable assurance to EPA that necessary agricultural reductions will be achieved, nor did it give PA policymakers a clear roadmap for funding and program needs. The Chesapeake Bay Foundation agrees with EPA's assessment of serious deficiencies and we provide the following recommendations to correct these deficiencies.

Achieve widespread compliance with state and federal requirements in a timely fashion

The final WIP Agricultural Compliance Plan must identify the process, resources and timelines necessary to inform and assist producers who do not have required plans and BMPs.

Pennsylvania has a solid foundation upon which to work with small and medium sized farms that are not required to have certified nutrient management plans or Concentrated Animal Feeding Operation permits. DEP deserves much credit for efforts to revise Chapter 102 regulations on erosion and sedimentation control and the Field Application of Manure Supplement to the Manure Management Manual. Once the latter is completed, producers will have clearer guidance on required planning and implementation measures for both sediment and nutrient control, setting a "level playing field" for the majority of producers and giving an excellent context for gaining additional nutrient reductions from farms that may have considerable work yet to do.

The draft WIP relies heavily on new BMPs derived from farms developing and implementing required Erosion and Sediment Control Plans and Manure or Nutrient Management Plans. CBF supports this approach as fair and cost effective. It will focus pre-2017 efforts on implementing "core BMPs" (nutrient management planning, cover crops, riparian buffers, no-till or low-till cultivation) on farms that previously had not established necessary conservation practices versus enhanced BMPs on farms already achieving high standards.

However, regulations mean little if compliance with those regulations continues to lag. Pennsylvania has required conservation and manure plans for almost years, and many farmers are still unaware of these regulations. Indeed, a large number of PA farmers are unfamiliar with these requirements for the very reasons that EPA has criticized PA's draft WIP: DEP has never led, and has still neither described nor committed to, a comprehensive and proactive compliance effort. The failure of the Commonwealth, through DEP, the Department of Agriculture, Conservation Districts, and others to clearly educate and inform the agriculture sector about compliance has left the Commonwealth's farms vulnerable under state laws to administrative enforcement and citizen action.

While Pennsylvania has no comprehensive database on farm plans, discussions with county and state conservation agency staff suggest that at least half of Pennsylvania farms do not have required erosion control or manure management plans, and the number could be much higher. Recent inspections by EPA in the Watson Run watershed in Lancaster County found that only three of the twenty four farms in the watershed had conservation plans. [FN3] A comprehensive assessment of farming practices in the Chesapeake Bay watershed found that about 26% of cultivated cropland acres across the watershed still need additional erosion control practices and about 81% of these acres require additional nutrient management practices. [FN4] Past and current DEP regulatory programs do not appear to be a significant factor in planning decisions for most producers.

The updated requirements for these plans, coupled with the expectations of the TMDL, will require a comprehensive outreach, education and enforcement strategy that details the steps DEP and partners will take to assure that the approximately 40,000 farms in the Chesapeake Bay watershed develop or update these plans and are on implementation schedules for meeting necessary standards for water quality. The final WIP must move beyond what appears to be largely a recitation of existing programs with modest funding and staffing enhancements.

Implementation of the revised Manure Management Manual will lead to significant nutrient reductions, but possibly not sufficient to meet the TMDL goals. If the Manure Management Manual does not yield the performance needed, then DEP must require a higher level, such as certified nutrient management plans on all farms producing livestock.

The draft WIP acknowledges that staff resources are insufficient to assure compliance, but does not provide any meaningful solutions to address this shortage. It proposes to support four new staff positions, that "once fully trained, are expected to result in an increase of 450 agricultural inspections annually, well as 50 stormwater inspections and 100 compliance actions per year. [FN5] At rate, it would take 89 years after their training to reach all of the approximately 40,000 farms in the watershed. The final WIP needs to provide a strategy for either reaching these 40,000 farms with existing resources as soon as possible or securing new resources for this purpose.

The final WIP must commit to ensuring that sufficient resources for technical financial assistance will be available so that necessary plans will be developed for the estimated 18,000 livestock farms in the Chesapeake Bay watershed by 2018 and all remaining crop farms by 2018. We provide the following analysis on the necessary staffing resources for planning and outreach. Whether or not the final WIP uses a similar analysis, it must describe in detail how Pennsylvania will provide assurance that needed conservation and manure/nutrient management plans will be done on a timeline that is consistent with TMDL milestones.

Staffing Needs for Compliance Outreach and Assurance - An Analysis

About 2,000 livestock operations already have Nutrient Management Plans, the remaining 16,000 farms require Manure Management Plans. The Lower Susquehanna Watershed should see the most emphasis initially, because it contributes both the greatest nutrient and sediment loads to the Chesapeake and has greater staff resources. The Lower Susquehanna Watershed contains about 21,000 farms, approximately 10,000 of which have livestock.

Some farms will require only verification that they have current Erosion and Sediment Control or Conservation Plans and Manure Management Plans that are being implemented on schedule. Other farms will require only modest updates to their plans to address water quality concerns. A third set of farms will require more assistance in developing and

implementing plans where none currently exist. Anecdotal information suggests that about approximately one third of are in each of the three above groups. We estimate that an average (across t various situations described above) of 2.5 days of technical assistance staff ti per farm are needed to develop a basic Erosion and Sediment Control plan Manure Management Plan in the case of livestock operations.

CBF's assessment of technical resources assumes that agency and private sector employees must reach about 5,000 farms each year, so that developing the necessary plans for all farms in the Chesapeake Bay watershed is achieved within eight years. Eight years to develop the needed plans would provide the framework to establish 60% of the necessary BMPs by 2017 as required by EPA. One staff person (with vacations, holidays, sick time, and training time) could assist about 90 farms annually. This would require 56 full-time staff people, working exclusively on planning assistance to farms in the Chesapeake Bay watershed.

An alternative approach would be to shift priorities of existing staff, with some sacrifices to other programs or priorities. An estimate of the needs under this approach includes:

- 62 Chesapeake Bay Technicians in Conservation Districts, that could spend about 2/3 of their time (140 days/year) on outreach and plan development, with an average of 2.5 days per farm. At this rate, they could develop 34130 plans annually.
- About 50 Nutrient Management Technicians, Erosion and Sediment Control Technicians and other Conservation District staff, that could spend 10% of their time, or about 21 days/year to develop 420 plans per year.
- USDA Natural Resources Conservation Service assistance with approximately 500 plans per year through various programs, such as the Environmental Quality Incentives Program and the Conservation Stewardship Program.
- Eight Department of Environmental Protection regional staff encouraging the most problematic farms to develop the necessary plans immediately, through the private sector if Conservation District staff unavailable. They could reach about 50 farms per year per person, or about 400 total plans per year.
- The private sector's development of an additional 250 plans in the initial year, and more in the future. This sector must play a significant role in plan development and implementation, and their ranks would likely expand with demand, as farms see stronger regulatory requirements or nutrient credit trading opportunities.
- Farms in geographic proximity could be grouped together (possi with Conservation District assistance) to obtain lower cost bids f planning.
- Additional funding from EPA could support private sector plan development.
- Farms that pollute Pennsylvania's waters should be required to develop and implement the necessary plans immediately, and m will need to rely on private sector planners, or face enforcement actions.

According to these estimates of combined technical resources of the public a private sector, about 5,000 farms in the Chesapeake Bay Watershed would h plans each year. Initial efforts should be targeted to livestock operations curr lacking plans. All livestock operations in the Lower Susquehanna watershed should have plans by the third year, and by the fifth year in the rest of the watershed. By the eighth year, all Chesapeake Bay Watershed farms should an Erosion and Sediment Control plan with a Manure Management Plan whe needed, although some may need adjustments. We propose the following timeframe for plan development:

[Please see page 123 of the Docket ID #EPA-R03-OW-2010-0736-0732 for the table]

Once farms develop the necessary erosion and sediment control and manure management plans, additional work will

be needed to ensure that plans are being implemented, soil erosion is limited to "T" over a rotation, animal concentration areas are correctly managed, buffers are established and maintained, cover crops are planted early enough each year, and other practices are successfully established and maintained. Plan development is just the first step in the process.

Enforcement

The draft WIP describes the planned "Targeted Watershed Approach" which will guide the department's compliance and enforcement efforts. This approach has many advantages, particularly given limited staffing resources. CBF recommends, however, that the final WIP include a compliance and enforcement strategy that extends beyond targeted watersheds and response to complaints. The final WIP needs to outline a process that will result in all farms complying with state and federal requirements on a timeline consistent with the TMDL.

Thus, in addition to DEP's efforts in targeted watersheds, the initiative should focus enforcement on farms with obvious and serious water quality problems first. Complaint-driven enforcement of environmental regulations is inadequate because it drives regulatory action to the farms where there are observant neighbors, not necessarily where the greatest pollution risks exist. Throughout the watershed, there are farms that have not participated in voluntary technical and financial assistance, and some of these operations contribute to serious water quality problems. Many of these problems - such as direct barnyard runoff and unmanaged Animal Concentration Areas (ACA's) near streams - are clearly evident from public roadways. Publicized enforcement on these farms would serve as an incentive to many others to quickly develop the plans and establish the conservation practices needed on their farms to avoid similar regulatory action. EPA's recent enforcement action on a facility in Manheim, PA illustrates this approach. [FN6] Many voices from within agriculture have supported fair but firm enforcement of the state's Clean Streams Law focused on bad actors first.

CBF supports an emphasis on targeting ag-impaired streams as described in DEP's draft Agricultural Water Quality Initiative. [FN7] But we believe that a targeted watershed approach alone will not be sufficient to ensure adequate compliance throughout Pennsylvania's Chesapeake Bay watershed. We believe a multipronged approach would be most successful, comprised of:

- Inspections of farms in targeted watersheds
- Enforcement on farms with significant pollution problems, regardless of location or broader watershed impairment, especially where the operator has failed to take corrective actions in the past a timely manner
- Randomized compliance visits to a small percentage of farms through Pennsylvania each year

Close coordination with conservation districts on these efforts will be necessary. The WIP should describe programmatic options DEP will pursue to encourage and enable individual conservation districts to take a more active role in compliance assurance (versus providing only technical assistance to producers).

Addressing the Funding Gap

A significant challenge not resolved in the draft WIP is how PA will commit to level of resources, particularly for agricultural financial assistance, that is on par with the need. While the federal government has increased conservation funding through Farm Bill programs, farmer demand for financial assistance consistently and substantially exceeds available

funding. On average, about two-thirds of Pennsylvania farmers' applications for Natural Resources Conservation Service (NRCS) financial assistance programs have remained unfunded in recent year. About 2000 Environmental Quality Incentives Program applications were unfunded last year, due to funding shortfalls. [FN8] While the state faces his financial constraints, this does not relieve the state of its obligations under the Clean Water Act. Pennsylvania policymakers did not make sufficient investment in agricultural nonpoint source programs during times of surplus; these were legislative and executive choices that make the current situation all the more difficult. The WIP must describe how this historic funding gap that continues this day will be corrected.

The final WIP should specify the level of financial and technical assistance needed and what funding streams will be secured, leveraged or appropriated and at, levels. The final WIP must estimate the total expenditure (public and private) necessary for planning and for implementing all the remaining BMPs that will be required to get all farms into compliance and to achieve agriculture's portion of the TMDL. This analysis would logically assume shared contributions from the federal government, the state, and producers themselves. PA's earlier tributary strategy estimated that need at roughly \$215 million dollars per year, for at least seven years. Unfortunately total annual spending on agricultural BMPs never came close to this figure. The final WIP needs to identify the approximate funding need now through at least 2017. Without a clear funding requirement spelled out in the WIP coupled with specific funding streams meeting that level, a key element of reasonable assurance will not be satisfied.

Indeed, the draft WIP reviews past and current expenditures but fails to mention imminent shortfalls and reductions and what steps will be taken to replace lost funding. For example, the draft WIP's section on Growing Greener does not mention that the current round of this foundational funding program is coming to an end just as the Bay TMDL is getting underway nor does it recommend any new funding. The section on the REAP tax credit program states that the program was cut in half with no discussion of restoring or increasing funding for the program.

Funding for County Conservation Districts and Core Conservation

While CBF supports DEP's efforts to fund alternative technologies and manure-to-energy systems, we are concerned that this focus may distract the DEP from ensuring that "the basics" are tended to first, meaning cover crops, buffers, fencing, barnyard treatments, and other BMPs needed for soil and nutrient plan implementation. It is from these practices that PA will derive the lion's share of reductions at the lowest cost. The draft WIP relies heavily on Conservation Districts for delivery of core conservation practices, and places additional responsibilities on staff, without providing additional resources. The final WIP should estimate the additional staffing and resources for the conservation districts to implement the additional outreach, compliance and technical assistance necessary for implementation of the Agricultural portion of the Bay TMDL and provide the necessary increase in future budgets beginning in the 2011-2012 budget. The Pennsylvania Association of Conservation District's budget request for Fiscal Year 2010/2011 of \$10 million is a minimum of the annual allocation needed to provide the staff resources needed to meet the expanding requirements in the draft WIP. [FN9]

Restoring Funds to the Resource Enhancement and Protection (REAP) tax credit program

This efficient and over-subscribed tax credit program has established a tremendous track record of matching tax credits with private resources to accomplish conservation goals. In spite of its effectiveness at supporting conservation and leveraging private funds, the allocation to REAP has been cut in half.

While most state programs have seen cuts in the last two budgets, the final must reconcile this reality with the imperatives of the TMDL. Seeing the great need for agricultural financial assistance, in April of 2008 the PA Fair Share C Water Coalition called on the General Assembly and Governor Rendell to invest \$50 million annually in agricultural assistance (split between \$35 million in RI and \$15 million in new cost share grants). [FN10]

While committing Pennsylvania to \$50 million in new funding in 2011 may not be realistic for the final WIP, it needs to describe a strategy of "scaling up" state funding for agricultural BMPs between now and 2017. CBF recommends that allocation for the Resource Enhancement and Protection (REAP) tax credit program be restored to at least \$10 million in FY 2010-11 and increased by \$1 million per year thereafter until unmet demand for financial assistance comes into line with available funding from all sources, and milestones for BMP implementation are being consistently met. It is critical that the Commonwealth maintain consistent funds for the program so that producers can make investments in new BMPs with greater confidence that tax credits will be available when they need them.

Total Maximum Daily Load Compliance and Nutrient Credit Trading

While producers may partially or fully reach TMDL compliance with Nutrient Manure Management Plans and Erosion and Sediment Control plans, it is currently unclear how close compliance with state regulations will bring a farm to TMDL compliance. The final WIP should establish, or commit Pennsylvania to establishing within six months or less, the criteria all farms must meet to achieve compliance with the Bay TMDL as well as adequate protection for local water quality. These criteria would constitute "baseline" after which an operation can generate offset or trading credits. DEP should consider establishing these criteria in such a way that enables producers to select from a suite of options based on the type of operation and relevant local conditions.

Clearly specifying criteria for TMDL compliance will be important for planners providing technical assistance to producers. To the greatest extent possible, planners and producers should design Manure Management Plans and Erosion and Sediment Control Plans, and their associated conservation practices, in order to maximize nutrient and sediment reductions. Individual plans designed only to meet state and federal regulatory requirements could be insufficient to cumulatively reduce nutrient and sediment pollution under the TMDL. For example, a farm with contour strips and manure application setbacks from streams may satisfy regulatory requirements, but the addition or substitution of no-till practices, cover crops and riparian buffers may be needed to address water quality goals. Planners will provide a better service to producers if they include these practices at the outset (some of which may be optional for state regulatory compliance) so that farms are not faced with multiple plan revisions at a later date.

Moreover, clear guidance on TMDL compliance for farms will enable DEP to establish standards for "safe harbor" for producers, which we recommend be completed within one year of the final Phase 1 WIP. With safe harbor, producers who achieve an established level of environmental performance and/or BMP implementation would be protected from further requirements for a set period of time, such as three to five years.

Pennsylvania's current trading policy system of utilizing a subwatershed tradeable load cap does not meet EPA's trading policy guidelines. The following problems preclude Pennsylvania's trading program from effectively meeting the reduction goals.

First, the lack of a requirement to meet TMDL compliance prior to trading would likely preclude credit generators in Pennsylvania from participating in multi-state trading, which represents potentially a very profitable scenario for

generators.

Second, there is no strategy, resources, or clearly stated requirement for NPS credit generators to come into TMDL compliance after they have reached the current threshold for trading. Moreover, when some operations in a subwatershed have utilized the available credits under the cap - there is no plan for obtaining the additional reductions from the remaining operations. Will regulatory authority be utilized? Will resources be made available?

Third, there will be problems of inequity if some farms, achieving the same level of compliance, are allowed to trade, and others are not (because the tradeable load cap has been reached in that subwatershed). A related issue is that after tradeable load cap has been met, farms may have to implement more expensive BMPs, at their own expense, after selling more inexpensive credits to buyers. Again, will regulatory authority be used? Will resources be made available?

Phosphorus Management

The current Phosphorus Index allows phosphorus to accumulate in some soil beyond crop needs, and therefore will not adequately protect water quality in the long term. Therefore, the WIP must outline a strategy to revise phosphorus management standards that will be implemented over time to address the problem of excessive phosphorus accumulation. Elements of this strategy may include:

- Revision of nutrient management planning requirements to prevent water saturation of soil phosphorus, such as by reducing the P Index scores where P may not be applied or may be applied at reduced rates, within one year
- A limit on P application to the rate needed for crop production, based on soil tests and realistic yields, over a specific timeline. For example, the standards could be implemented by 2017 for Concentrated Animal Operations (CAOs) and Concentrated Animal Feeding Operations (CAFO) and for all farms by 2025.
- Development of new strategies to correct the regional imbalance of phosphorus that results in a heavy influx of this mineral that is a finite natural resource. Pennsylvania must reduce the flow of phosphorus in livestock feeds into the region, and/or develop new strategies to cost-effectively transfer it to locations that need it.

Concentrated Animal Feeding Operations

The proposed plan includes working with EPA Region 3 to improve the CAFO program. The Chesapeake Bay Foundation strongly recommends that the program designate AFOs with discharges as CAFOs, as specified in the federal CAFO rule. The farms should have an opportunity within a reasonable timeframe to correct the discharges before designation. The goal should be to remove the discharges, rather than expand the number of farms under the CAFO program.

Farms' efforts to prevent CAFO designation would be a valuable tool to address problems such as: livestock directly depositing manure in streams, stormwater flowing from manure management facilities, and other sources of stream degradation. CAFO designation would provide a regulatory tool to address some of the most significant sources of pollution to the Commonwealth's waters.

In Pennsylvania, requiring farms to eliminate discharges or face enforcement proceedings as CAFOs is likely to be a more effective tool to improve water quality than lowering the threshold of animal numbers to include more farms as CAFOs.

USDA Technical Service Provider Program

The Commonwealth should work with the USDA NRCS to develop a broader, more flexible TSP to enable greater private sector delivery of critical conservation programs such as the Environmental Quality Incentives Program (EQIP) and the Chesapeake Bay Watershed Initiative (CBWI). Pennsylvania's private sector agricultural groups should be enabled to play a greater role in providing the critical technical assistance necessary to implement the federal agriculture program dollars.

Improved tracking of all BMPs

DEP does not effectively track nor, therefore, report and model most Best Management Practices (BMPs) that are privately funded and not part of an organized program. Thus, many of these key BMPs are dramatically under-reported. Pennsylvania must incorporate Census of Agriculture data, satellite images (such as for cover crops), and other broad data collection methods with efforts to assure that practices are established according to standards and are being correctly maintained.

--Identifying untracked BMPs could "open the door" to education and outreach on necessary compliance efforts. People trying to assess the untracked BMPs may also provide information about requirements facing farms and refer them to sources of technical and financial assistance.

--Identified farms with superb conservation efforts could be provided information about nutrient credit trading opportunities.

At the same time, Pennsylvania's efforts to better track voluntary Best Management Practices must also track activities from agriculture and all other sectors that increase nutrient and/or sediment loads, such as new and expanded livestock operations. For example, the explosive growth in gas development the Marcellus Shale formation has resulted in loss of forest acreage in northern tier counties. In another example, Amtrak has been clear cutting trees along mile stretch of the Susquehanna River for electric line maintenance, with no for reforestation. [FN11] These losses directly offset gains for two modeled BMPs tree planting and riparian forested buffers - and must be accounted for in the model.

Innovative Technologies

The draft WIP promotes regional digesters and other technologies, without detailing how they will be financially viable, the fate of nutrients, and how they may be structured and managed. The Chesapeake Bay Foundation supports development of innovative technologies that hold potential for significant, cost-effective nutrient reductions, but also recommends strong emphasis on "tried true" cost-effective nutrient reduction methods, with testing of promising innovations. Moreover, the need for alternative uses for excess manure is most urgent for small dairies with high animal density. DEP's program for innovative technologies should focus research and assistance to this sector.

Conservation Reserve Enhancement Program (CREP) as the First Choice for Building Buffers

As the WIP states, Pennsylvania leads the nation in CREP enrollment, bringing with it substantial water quality benefits. With a broad CREP partnership and continued robust resources available through CREP for future enrollment, PA has a terrific base upon which to achieve further implementation of additional riparian forested buffer acreage. Indeed, the

WIP should stress the important CREP to PA's buffer goals for agriculture (as well as non-agricultural landown and propose new strategies to boost enrollment . Instead, the WIP recites statistics about the program with little attention to its future. The benefits c CREP and CREP buffers are many:

- CREP provides substantial non-state funding to implement riparian forested buffers to meet PA's milestone goals and financially benefit landowners.
- Riparian Forested Buffers, once successfully established after three to four years of careful management, require significantly less maintenance for proper BMP effectiveness compared to many other BMPs. Indeed, forested buffers continue to provide benefits for decades or longer . Many other agricultural BMPs have lifespans of only 5-15 years.
- Riparian Forested Buffers provide significant habitat value and local water quality and stream ecosystem services in addition to nutrient reductions to the Bay."
- Plentiful CREP resources can be used for many pasture-related agricultural BMPs, such as stabilized crossings and alternative livestock watering systems, thus freeing up limited cost share funding of other programs like EQIP, literally stretching financial assistance funding to serve more farmers and deliver more practices.
- CREP typically pays at least 100% of project installation costs, designed and implemented by experienced professionals . CREP typically yields profits of \$2000-\$4000 or more per acre over a 15-year contract, with an opportunity to re-enroll for an additional contract another \$2000-\$4000 or more per acre. In addition, CREP pays for post-planting care of buffers that is critical to their success.
- Forested riparian buffers provide greater opportunities for nutrient credit trading or carbon credit trading.
- Research from the Stroud Water Research Center has documented that forested streams may reduce 2-8 times more nitrogen than same-width grass buffers via in-stream processes. [FN12]
- Buffer maintenance is often more difficult for narrow than wider buffers. Streams with actively moving banks may undercut fence posts . Fences nearer to streams often catch more flood debris .

Wherever Pennsylvania fails to get pollution reductions from a particular site forested buffers can provide (all paid for by CREP at a profit to landowner), ti will need to be additional reductions from other practices for which funding i limited. The alternative methods/practices needed to reach the required reductions might present more challenges to farm management than adopting forested buffers.

Thus, the WIP should identify specific programmatic opportunities that DEP partners can pursue to maximize CREP's contribution to Pennsylvania's nutri reduction efforts. These may include:

- DEP should continue to give a clear preference to the establishment of foot wide forested buffers over grass buffers.
- DEP should continue to offer its conditional cost-share reimbursement the Riparian Forest Buffer Practice (CP-22) to ensure that enrollments continue to meet future milestones for buffers.
- DEP should convene the Pennsylvania CREP Partnership to discuss opti for accelerating enrollment in CREP for buffers and commit to implementing the best options in the Phase II WIP.
- FSA and NRCS, with input from other partners, should consider modifications to EQIP and CBWI that incentivize the use of CREP instea other Farm Bill funds for the construction of buffers and associated practices for livestock operations. For example, EQIP ranking criteria c give preference to proposed projects that include CREP buffers.

Much speculation has been made about farmers' unwillingness to enroll in a program that requires 35-foot minimum buffers. While buffer width is certai barrier for some producers, our experience suggests that many will adopt bu and enroll in CREP when a clear vision of how forested buffers can play a vali profitable role in meeting pressing needs

facing PA agriculture.

To illustrate, CBF's initial proposal to PENNVEST for ARRA funds included 120 farms asking for \$28 million for various agricultural BMPs. Eligibility for these funds required: 1) a Chapter 102 compliant conservation plan 2) elimination of runoff from ACA's or barnyards 3) elimination of milk house wastewater poll and 4) 35' forested buffers on all areas of all streams (including existing buffE counted and use of CREP for new buffers). Out of 120 farms, only two declin due to the buffer requirement. Our final proposal included 45 farms for \$14 million, and all agreed to the above terms including buffers of at least 35 feet.

Coordination among All Organizations and Agencies

The effort to assure that all farms in the Chesapeake Bay watershed are developing and implementing the necessary conservation and manure management plans will require collaboration among all parties working with farmers, not just conservation districts and DEP. The WIP should recommend roles and an on-going planning process bringing together DEP, USDA Natural Resources Conservation Service, Penn State Cooperative Extension, Pennsylvania Department of Agriculture, State Conservation Commission, PennAg Industries. Association, Pennsylvania Farm Bureau, Pennsylvania Association for Sustainable Agriculture, Chesapeake Bay Foundation, PennFuture, private sector technical assistance providers, agribusinesses, and many other public agencies, agricultural and conservation organizations. A coordinated effort could advance innovative approaches that have not been employed in the past; for example :

- Conservation plans developed by NRCS to enable a farm's participation in cost-share programs should address all water quality problems on the farm and ensure that the farm will meet TMDL requirements.
- Agricultural lenders should be verifying that their clients are implementing the necessary plans, to reduce the financial risks of farms with serious pollution problems.
- Insurance providers could verify the implementation of plans, as a way to reduce their liability.
- When Penn State University's PaOneStop program to develop conservation plans is finalized, technologically-savvy youth could help farmers develop a conservation plan.
- The Food Alliance is now partnering with the PA Association for Sustainable Agriculture to deliver third-party certification of farms, food packers, and other agricultural entities that meet environmental and other standards.
- Milk inspectors could inform farms of their requirements, as a way to ensure that the farms remain in production and, in some cases, produce higher quality milk, such as when cows are no longer standing in mudd animal concentration areas that contribute runoff to local streams.
- Municipal governments could ensure that farms are meeting all state i federal requirements, such as when farms need building permits. An e better approach would be a comprehensive strategy to ensure that all farms are meeting requirements, such as that used by Warwick Towns Lancaster County.
- Farms with the most significant pollution problems should be required immediately develop plans, regardless of whether conservation distric other public sector technical service providers are available. They coull linked with private sector conservation and nutrient management plar to develop plans quickly, at the farm's expense.
- County tax offices could verify that farms receiving preferential tax assessments under the Clean and Green program have and are followi the required soil erosion control and manure management plans- .

The Chesapeake Bay TMDL and state WIP will require public and private ent and thousands of Pennsylvania citizens, to make changes - some large and s small - in how they conduct their lives, properties, and businesses. DEP nee lead

and coordinate this effort so that everyone is pulling together.

Urban/Suburban Stormwater

In the draft WIP, DEP provides an excellent summary of existing stormwater-related programs, staffing, regulations, and permit structure. However, we have numerous concerns regarding the sufficiency of these and as well as the solution for urban/suburban pollutant loads that are relied upon by DEP.

Projected reductions represent a reduced rate of increased load, not a true step toward achieving cap loads.

DEP's proposed approach to addressing loads from the urban/suburban sector relies almost exclusively on efforts that minimize the increase in loads from land conversion activities. The approaches in the draft WIP offer little or no solution to addressing existing loads from previously developed urban/suburban land.

For example, consider a new residential development in a green field setting that must acquire a Chapter 102 permit. In this case, the reduction in pollutant loads via the new erosion and sedimentation control standards in Chapter 102 represent a decrease in the net increase in load during construction. As a result, no progress towards meeting the TMDL caps has been made but simply a reduction in the rate in which loads have increased, albeit temporarily in this case.

A similar argument can be made for the post-construction scenario. DEP's approach relies heavily on Pennsylvania's Stormwater Management Act 167. The Act 167 plans have traditionally focused on developing a plan that minimizes the impact of new sources of stormwater rate and, recently, volume on a watershed or county-basis. While in recent years such planning efforts have in some cases identified stormwater retrofit opportunities to address existing stormwater concerns, there is no requirement or reasonable assurance that such projects will be implemented. More discussion of the sufficiency of the current Act 167 program and requirements is provided below.

Finally, DEP contends that achieving the control guidance and guidelines for a 2-year 24 hour storm, as detailed in DEP's stormwater BMP Manual [FN13] results in a no net increase in pollutant loads. However, the control guidance only suggests a planning requirement of reducing post-construction loads by 85 percent reduction in post-development total suspended solids (TSS) and total phosphorus loads and a 50 percent reduction in post-development solute (as nitrate nitrogen). Furthermore, some studies have indicated that the 2-year 24 hour design storm may cause excessive erosive streambank flows to receiving streams. Under either scenario, this does not equate to a no net increase. These concerns are explained further under the Urban/Suburban Stormwater, Accounting for Growth section of our comments.

Methodology for Developing Current Loads : MS4 Runoff

We have and continue to contend that the MS4 Sector Methodology (page 34 of draft WIP) is fundamentally flawed by being non-reflective of real world conditions and contrary to the purpose and intent of the federal MS4 program.

Essentially, using the approach described in the draft WIP would be equating publicly owned roads as equivalent of the MS4 drainage network. Under this methodology, the land area contributing to the MS4 would not be calculated part of the load. For instance, in a residential development in which the downspouts are connected to the stormwater system

or drain to the system overland flow, DEP's methodology ignores the loads associated from these contributing areas and instead pretends that only the streets generate and contribute point source pollutant loads to the MS4 system. As the adage goes possession is nine tenths of the law and it is simply scientifically unjustifiable contend that those areas contributing to the MS4 should not be considered a part of the MS4, despite Pennsylvania's unique local governmental framework and inability to require retrofits or new stormwater BMPs on grandfathered private land.

The reasons why the proposed approach is scientifically questionable are cle< brief, however, this methodology threatens to significantly under-represent pollution load from MS4 service areas. In turn, it will result in inappropriat depressed responsibilities for load reductions from MS4 sources areas.

Interestingly, by employing such a limited definition of the MS4 area, DEP ha MS4 communities in a very difficult position to achieve assigned TMDL WLA c loads. The approach would actually severely limit the suite of potential load reduction BMPs available to MS4s to those that are only applicable on or alongside roadways--street sweeping, catch basin inserts, and vegetated swa to name a few. If pollutant load reductions are not achieved or maintained such BMPs, MS4 communities may be faced with being out of compliance wiiththe TMDL WLAs and with limited options to address it.

In 2007, EPA issued a document that examines how TMDLs with storm water sources were created in 17 watersheds. [FN14] None of the methodologies appro in these 17 examples appears to be in any way similar to Pennsylvania's methodology.

In our research, we have not found another instance where EPA has approve use of this type of an approach for the calculation of MS4 loads and associated load reductions as part of a TMDL; we believe that is because its use or approval would effectively undermine MS4 permitting programs across the country.

However, we understand and appreciate the unique difficulties Pennsylvania's fragmented local governmental system present in instituting an MS4 program, particularly a program which achieves quantifiable reductions in stormwater load. These issues are especially evident in the context of a TMDL.

Adopt the Christina River Basin Watershed Stormwater Source TMDL as the MS4 Load Methodology in the draft WIP

An interesting and appropriate solution to this problem may be the methodology employed in The Christina River Basin Watershed Stormwater Source TMDL (2006), [FN15] which included all or parts of MS4 communities in Pennsylvania, Delaware, and Maryland.

The Christina TMDL acknowledges that for the actual waste load allocation (WILA) neither "the PA nor the DE MS4 permits identify the boundaries of the stormwater collection system contributing areas within each municipality. Therefore, it is not possible to assign a WLA specific to the storm sewer collection areas within each MS4 municipality. Because these systems have not yet been delineated, the TMDL includes nonpoint source loadings in the WLA portion of the TMDL. It is anticipated that the state's stormwater program will revise the WLA into the appropriate WLA and load allocation (LA) as part of the stormwater permit reissuance; however, the overall reductions in the TMDL will not change."

The Christina TMDL MS4 WLA methodology could be employed as the stormwater load calculation approach in the

phase 1 WIP with the requirement that all new and reissued MS4 permits contain requirements for delineating the drainage areas of each outfall within the MS4 in order to more precisely determine the WLA versus LA loads within each urbanized area.

In summary, we strongly believe that DEP's proposed MS4 methodology is inconsistent with the MS4 permitting program and real world conditions. We recognize, however, Pennsylvania's unique local governmental structure and the difficulty it presents in dealing with this issue. To that end, we believe the approach employed in the Christina TMDL represents the most readily employable and justifiable solution and strongly urge DEP to undertake this alternative.

We have provided our position in a letter dated August 12, 2010 letter to EPA Region 3 Water Protection Division Director, Jon Capacasa. This letter can be found in Attachment B. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1]

Methodology for Developing Current Loads: Industrial Stormwater

The narrative describing how industrial stormwater loads were derived should be expanded to include several key areas currently not discussed.

For instance, the area loads per land use in EPA's Chesapeake Bay Model do not contain an explicit industrial land use category. Given such, it is imperative that DEP present what the employed pollutant load (lbs/ac/yr) was in the industrial sector.

Secondly, DEP states that for consistency with other Pennsylvania TMDLs, a drainage area per outfall was assumed. No information pertaining to how that assumption was derived in this or in previous TMDLs is presented in the draft WIP.

Methodology for Developing Current Loads: Construction Stormwater

The description of the method employed to calculate loads from construction activities is difficult to fully comprehend.

Under the approach, DEP assumes that the 10 year average rate of construction acreage will represent future activity, at least until 2025, it would appear to be reasonable to occur in perpetuity as eventually all developable land will be developed. To rectify this issue, it may be necessary for DEP to determine the remaining developable land per county and subtract that value by the 10 year average acres to determine the remaining number of years the average rate of construction can continue within the county. Clearly, Pennsylvania's woeful record of land use planning makes such an analysis difficult.

Another issue is if construction activity increases above the 10 year average. If this were to occur, it would represent a load not accounted for in the model could result in exceeding the cap loads assigned to the sector and the overall TMDL. To avoid such a circumstance will require careful accounting by DEP raises several difficult questions if such an event occurred. For instance, would DEP cease approving construction permits if the 10 year average for the county would be exceeded by the approval? Or, would DEP require that all construction sites that represent acreage above the 10 year average have a "no net increase" of pollutant loads provision in their NPDES permits?

DEP states that for construction acres they employed the average loading rate's associated with high intensity urban

land. However, an open construction site, even with erosion and sedimentation controls, is fundamentally different than an urban site under post-development conditions. Simply stated, a construction site often has little or no vegetation or other soil stabilization; thus, rain events can easily mobilize soil particles of all sizes. A high intensity urban landscape is highly impervious and although that also causes water quality concerns, it typically does not represent excessive erosion of the developed land. A study by U.S. Geological Survey concluded that managed construction sites can contribute 1.6 times more sediment load on a per acre basis than developed urban lands. [FN16].

The use of the high intensity urban land load called into question further given, that the Bay Model includes a Pennsylvania land use category for construction. The barren/construction land use category indicates a nitrogen load (lbs/acre) of 27.7, a phosphorus load of 3.86, and a sediment load of 3.64 (t/acre). The high intensity urban pervious and impervious loads employed by the Bay Model are notably less than these values.

Finally, it is unclear whether DEP has considered under the construction source sector Oil and Gas extraction activities (i.e., pads and infrastructure) as part of the construction category. Given the magnitude of the industry and the amount that may be under construction for the foreseeable future, it would appear to be a vital oversight if such activities were not appropriately accounted for.

Methodology for Developing Current Loads: Urban/Suburban Runoff-Non MS4

DEP states that the non-MS4 load was determined by subtracting out regulated point source and other "developed" land loads from the total urban/suburban load. While the total non-MS4 load can be obtained from such an analysis, under this approach a more nuanced and comprehensive understanding of the urban/suburban load is not obtained.

A more accurate approach to determining the non-MS4 load would be to determine the urban/suburban load based on land use intensity (e.g., high or low) and the proportion of pervious and impervious fractions. Under this approach developed land totals could be determined for each county and further segmented based on the level of intensity. Based on observational data or by professional judgment, the impervious to pervious fractions per land intensity, would be calculated.

MS4 Program (sufficiency and compliance)

The current state of the MS4 program is widely acknowledged as being ineffective and largely ineffectual in achieving quantifiable reductions in stormwater-related pollution from urbanized areas. Difficulties with funding and oversight, Pennsylvania's governmental framework, and the limited nature of the Six Minimum Control Measures, amongst other factors, have restricted the program's overall effectiveness. Compliance issues that have resulted in nearly 100 municipalities recently being cited by EPA for failure to adhere to the permit requirements further illustrates the difficulties the program has encountered.

To that end, we find it perplexing that in the draft WIP DEP presents the MS4 permit as being highly effective and efficient and achieving quantifiable and sustainable reductions in stormwater pollutant load. While improvements in the permit may yield such, we do not believe that in its current or recently proposed form it can be a reliable approach to mitigating this source sector. This proposed change significantly reduces the reasonable assurance that the non-point source stormwater load will be reduced.

We recommend that DEP fully incorporated into Pennsylvania's MS4 permit those draining to the Bay watershed the recommendations we detail in our 2010 letter to DEP Stormwater Planning and Management Chief, Barry New. A copy of that letter can be found in Attachment C. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1]

Pennsylvania's Stormwater Management Act 167

When passed in 1978, Act 167 was a unique and progressive step towards stormwater management. But, in many ways, the Act has outlasted its usefulness and needs to be updated to reflect today's regulatory realities. VA updates that require preventing new sources of stormwater pollution and addressing problems from existing development, Act 167 could once again serve as the framework for planning and implementing stormwater management relevant to the challenges of today.

In the draft WIP, Pennsylvania accurately notes the required nature of Act 167 planning and adoption of local ordinances. However, the reality of the program is such that it is considered a voluntary planning program not undertaken by counties or local governments without cost-share funding from DEP. As a result, the development and updating of such plans has been in some cases extremely protracted. More importantly, information presented by DEP indicates that in some cases municipal adoption of Act 167 ordinances has been woefully inadequate.

DEP data indicates that of 2,566 municipalities in the Commonwealth, as of 2008 only 911 had at least one approved Act 167 plan. This equates to roughly only 36 percent of local governments. Of those, approximately 359 have failed to adhere to the Act and have past-due enactments. [FN17]

Act 167 could be used as the fundamental tool to achieve compliance with the stormwater-related requirements of the Chesapeake Bay TMDL, as well as local TMDLs. But in order for it to function in such a fashion, the Act should be revised so that requirements for such plans and ordinances explicitly and quantitatively integrate achieving and maintaining TMDL WLA and LA allocations for stormwater.

Funding assistance for Act 167 planning, which has been eliminated in recent Pennsylvania budgets, must be restored.

Accounting for Growth

Whether within or outside an MS4, new rural, suburban, and urban growth threatens to outstrip nutrient and sediment load reductions achieved from other sources. Given that new greenfield development rarely, if ever, occurs in isolation and often causes a "train" of development and services that follow, the cumulative impacts of these development patterns far outweigh the impacts per site basis.

In the draft WIP, DEP states that a no net increase in pollutant loads is achieved by managing for the 2-year 24 hour storm event. Under this option, it was conventional thinking that if flows were held below the two-year level that erosion would be minimized. However, some research has indicated that this criterion frequently does not protect channels from downstream erosion and actually exacerbate erosion since banks are exposed to a longer duration of erosive bankfull and sub-bankfull events. [FNs 18,19,20,21] And, as development continues within a watershed that is managed under 2-year 24 hour storm event criteria; the bankfull event that causes streambed and bank erosion actually can decrease below the 2-year threshold. [FN19] If such is the case, then a no net increase is not achieved due to erosive flows causing

increased sediment and phosphorus load downstream.

Furthermore, in section 3.5 of DEP's stormwater BMP Manual [FN22] a control guideline for total water quality of an 85 percent reduction in post-development total suspended solids (TSS) and total phosphorus loads and a 50 percent reduction in post-development solute (as nitrate nitrogen) is recommended, not required. Under such a design approach, each new development which meets the control guidance and guidelines established in the Manual represents an allowable 15 percent increase in TSS and total phosphorus load and a 50 percent increase in nitrate nitrogen load. This does not equate to a net increase. In actuality, it represents a decrease in the increase of pollutant loads from new development.

To ameliorate this significant deficiency, we strongly recommend Pennsylvania's draft WIP include an offsets provision similar to that described in Chapter 3 of Maryland's draft WIP. [FN23] Under Maryland's proposed approach future loads from development would use different degrees of offsets in three different types of places. Areas with high loads per capita would need to offset loads to a higher degree than areas with low loads per capita. A third category would fall in between. Areas with sewer service and higher density of homes and jobs, served by state-of-the-art sewage treatment, will tend to have lower per capita loads.

Areas with low density development on well and septic systems would tend to have higher per capita loads. Regardless of whether a modified version of Maryland's approach is acceptable, it is imperative that given the sprawling trend of land development in Pennsylvania over the last several decades, that a full cost accounting and offsetting of new stormwater loads be fully negated through a program which addresses postconstruction stormwater management loads. Such a program should also abandon the "meadow or better" baseline condition to a more appropriate for the watershed baseline-forest.

Lawn Fertilizer -A lawn fertilizer restriction law should be enacted

The draft WIP only briefly mentions the potential consideration the development of an Urban Nutrient Management program. The precise nature of such a program is undefined.

Recent research has indicated that turf cover ranges from 2.1 to 3.8 million acres, or 5.3 percent to 9.5 percent of total Bay watershed area. Approximately 75 percent of current turf cover is potentially devoted to home lawns. In Pennsylvania, lawns cover an estimated 1,059,015 acres-most of which occurs in south-central part of the Commonwealth. [FN24] Although precise data on management techniques does not exist, the potential implications to local Bay water quality is large and should be a primary focus.

Although numerous programs attempting to limit the impact of fertilizers on water quality have been developed and implemented across the United States recent decades, given the size and magnitude of the Bay effort in Pennsylvania the most readily implementable approach could be to simply limit the sale of phosphorus-based lawn fertilizer in the Commonwealth.

A recent study released by Virginia Tech supports the concept of prohibitions fertilizer applications, with exemptions for nutrient deficient soils or new seedings, as one of the most effective approaches to address this issue with the Bay watershed. Researchers at Virginia Tech estimated that a potential 25 to percent reduction in total phosphorus loading to stormwater could result within several years of the prohibition. The study also concluded that the prohibition achieved an

estimated 10 to 20 percent reduction in total nitrogen loads to stormwater run off. [FN25]

Given the clear benefit such an approach would yield at relatively low cost, through legislation Pennsylvania should enact a lawn fertilizer restriction law which would ban the sale of all fertilizers designed for turf lands that contain phosphorus and those that contain less than 25 percent slow release nitrogen. Further, by law, prohibit the application of fertilizer that contains nitrogen to lands more than once a year unless required by a valid soil test. Applications fertilizers should be allowed for new seedings on construction and reconstruction sites and for areas where soil test indicate a nutrient deficiency. A multi-year citizen education program will need to accompany the effort so as to ensure homeowner compliance.

Alternatively, the passage of a local municipal ordinance which affectively achieves the same outcome could be an explicit requirement of all reissued new MS4 permits could be considered. However, this approach may prove unwieldy to manage and code enforcement officers within the municipalities many of which are already dealing with numerous issues, may not be willing serve as an enforcement agency.

Establish a Series of Comprehensive Stormwater Pollution Planning and BMP Demonstrations

While moving forward with permits that meet the pollution reduction requirements of the Federal MS4 program and the Chesapeake Bay and local TMDLs, the draft WIP should propose a series of demonstrations to implement full scale on-ground installation of new and retrofitted stormwater practices designed to quantitatively achieve WLAs for stormwater pollutant loads within currently suburbanized/urbanized areas. The demonstrations should be sufficiently detailed so as to identify "critical sources areas" of stormwater load within the pertinent area and the most cost-effective solutions available to address these areas. Such an effort will provide valuable lessons learned as to how local implementation can occur and be integrated comprehensively into latter phases of the WIPs.

Develop a Stormwater Pollutant Offset Program for Existing Developed Areas

In some areas, it may make sense to achieve load reductions through an offset: program to be consistent with local targets and the cap allocation in the TMDL. A program that is designed at the appropriate spatial scale (e.g., county or watershed) that allows local governments to purchase pollution, but not volume or rate, offsets in lieu of on-the-ground practices should be considered. Such an effort, however, should not relinquish local entities from not achieving an appropriate baseline and threshold prior to being able to offset remaining loads.

Funding

Although DEP has risen NPDES permit fees recently and that will offer the program more funds towards technical review by staff, a significant deficiency in funds going towards implementation of stormwater-related planning and projects has and continues to exist.

A sustainable source of funding would not only facilitate Act 167 planning but also support local implementation of new and the retrofitting of existing stormwater practices and initiatives. Through legislation, regulation, or policy establish the framework for the creation and operation of local Authorities, Utilities, or Management Districts and/or other sustainable funding sources that enable entities to collect fees and generate revenues dedicated to planning, constructing, monitoring, maintaining, improving, expanding, operating, inspecting and repairing public and private stormwater

management infrastructure.

In addition, in order to facilitate the redevelopment and reduction of impervious surfaces in existing urban corridors, we recommend a law establishing a state incentive program for such activities. Incentives could include tax reductions/credits, density bonuses, parking waivers, fee reductions, and rapid project approval. Some local governments already provide a mix of incentives for certain actions. Incentives should only apply to projects that are either in US census-designated urbanized areas, consistent with the local comprehensive plans, include specific sound land use elements, such as supporting higher density, compact development, transit-oriented design, multiple uses, increased open space/buffers/tree canopy, and onsite capture and water reuse.

Forests

Methodology for Developing Current Loads: Forest

Section 4.7.3 of the draft TMDL and page 114 of the draft WIP presents a detailed description of the forested load within the watershed. In particular, the narrative describes the proportion of the forest load that can be attributed to atmospheric deposition, harvesting, and background conditions.

In the draft WIP, DEP contends that the Bay Model is "fundamentally flawed" because of the assumptions it uses in estimating pollutant loads from harvested acres. While DEP's arguments regarding the fact that most harvested areas have some level of BMP implementation and that such sites are rarely completely denuded of vegetation, we believe an additional factor should be considered when estimating the potential pollutant load from harvested forest land—slope length.

If harvesting of forest acres occurs on landscapes that are moderately to steeply sloped or in areas with long slope lengths, the pollutant load potential in such areas is higher than those in less sloped areas. In such instances, the presence of vegetative debris could easily be overwhelmed. As a result, it is important to understand the spatial specifics of the location of the harvesting activities, along with any BMPs that may be employed.

Accounting for Growth

In DEP's analysis of the current forest-land cover in the state and subsequent presentation of loss and gain information (page 117), it is interesting and important to note that while the overall forest cover acreage has remained relatively consistent since 1989, the loss of forest land and the pollutant removal efficiency they provide (overland flow interception and in-stream processing) has been largely concentrated in the central and south-central portions of PA's Bay watershed. These areas also have the highest pollutant delivery ratios and therefore represent a critical loss of pollutant removal capability. To that end, programs, initiatives, and regulations which protect and restore rural, suburban, and urban tree canopy cover should be prioritized to these areas.

Gap Analysis

As noted above, because forest losses since 1989 appear to have been concentrated in areas with the highest delivery ratios, emphasis should be on these locations. DEP states that 10 communities are partaking in an effort to analyze and possibly enhance urban tree canopy but those communities are not listed.

In addition, we believe DEP should consider requiring the adoption of a tree and woodland protection ordinance as part of an MS4 permit. Ordinances of this type provide a basic level of protection to existing tree canopies and remaining woodlands in urbanized areas. When used in conjunction with programs that enhance canopy cover, such as TreeVitalize, they can provide a quantifiable and stable source of pollutant reductions from the urbanized landscape. Numerous communities across the nation have adopted such ordinances and several models exist. A basic construct can be found at:

<http://conservationtools.org/tools/general/show/37> and
http://www.scenic.org/tree/model_ordinance

We commend DEP for their emphasis and exceedance of the 2010 forested riparian buffer goal of 3,300 miles. As one of the most cost-effective BMPs, forested buffers offer numerous ecological benefits and can be applied ubiquitously regardless of adjacent land use. Emphasis should continue on expanding the amount of forested buffers within the watershed via incentive and regulatory-based efforts, such as the new Chapter 102 requirements in HQ/EV watersheds.

Resource Extraction

Resource extraction activities provide a notable proportion of the total pollutant load from Pennsylvania, particularly in the Susquehanna River Basin. And according to the tables presented in page 23 through 28 or the B2 tables in Appendix 4, resource extraction is capped at 2009 levels.

Although the traditional mining common in the past is not expected to increase dramatically in the coming years, the oil and gas development industry related Marcellus Shale drilling represents a potentially significant new source of pollutant loads from extraction-based activities. We believe that this activity represents an unaccounted for new source that must be incorporated into the Bay Model and given cap loads for construction and post-construction stormwater loads, as other sectors have. To neglect this new source may render Pennsylvania unable to achieve TMDL cap loads, despite full implementation BMPs, and therefore unfairly shifts the burden of reductions to accommodate industry to other source sectors, like agriculture.

Similar to the construction permits for erosion and sedimentation control, the permit structure does not call for a net increase in pollutant loads. As such even well managed sites fully compliant with permit requirements can result in incremental increases in pollutant loads to local receiving waters and the Bay. Whether it's the BAT limits for sediment in coal mining-related permits or the narrative standards for oil and gas activities, each new permit represents a potential increase in pollutant load that must be accurately accounted for and offset.

Wastewater

CBF has and continues to fully support the implementation of the Point Source Allocation Strategy of 2007 which sets equitable nutrient limits via NPDES discharge permits for significant and non-significant sewage treatment facilities. Based on our analysis of the draft WIP, a few issues did emerge however. The aspects pertaining to the data presented in Table B2 and on page 23 through 28 are detailed in our Miscellaneous comments section. In addition to those,

Accounting for discharges less than 0.002 mgd may be necessary

As noted by EPA in recent wastewater WIP meetings, although it is very unlikely that discharges less than 0.002 have or will have a notable impact on Pennsylvania's ability to achieve the TMDL load caps, establishing a system of documentation of these dischargers so provide an accurate tracking and accounting mechanism of these systems currently and overtime.

An accounting system would likely require the coordination of local Sewage Enforcement Officers and DEP staff so as to properly account for existing and newly built systems. The system should be established so that it can recognize when or if such systems may interfere with the Commonwealth's ability to achieve and/or maintain the cap loads established in the TMDL. In the event that this were to occur, a mechanism to incorporate nutrient limits and the no net increase sewage discharge policy will be necessary. Although unlikely, at least in the near term, developing the details regarding such a safeguard should be committed to in the Phase 1 WIP and finalized in a subsequent Phase.

Onsite Wastewater

Regardless of whether the septic system load represents roughly 4 or 30 percent of the nitrogen load delivered to the Bay from Pennsylvania, DEP's proposed approach for this sector is inappropriate.

Close Septic System No Net Increase Loop Hole

New or expanded discharges from sewage treatment plants must achieve a no net increase in pollutant loads according to DEP policy; yet, septic systems do not have to achieve this standard and are essentially given a free ride in terms of addressing the pollutant load from these systems.

For instance, a new residential development that can either hook up to an existing sewer line may be required to pay the local authority a fee to offset increase nutrient loads or provide offsets in the form of credits. Alternatively, the development could build a "package" plant to provide sewage treatment if conditions were appropriate. In this case, the no net increase provision applies and credits or appropriate treatment such as spray irrigation would need to be obtained or employed. However, if septic systems are to be employed as the sewage treatment technology the developer and those that live there have no obligation to address nutrient loads from the systems. Such a situation may result in incentivizing septic systems over other treatment options.

To ameliorate this issue, DEP should close the loop hole available for septic systems and require new or reconstructed septic systems to also achieve a no net increase in nutrient loads. We concur, however, with DEP that reliable and affordable technology that addresses nitrogen loads from septic systems are available on the marketplace. Yet, other options to address future and existii loads from this source are available.

To address such loads, we propose the creation of a fixed price offset requirement for new or reconstructed septic systems. Under such a requirer the EPA load assumptions per system per household would be used to calculate the total anticipated load over the course of the expected lifespan of the syst (e.g., 30 years) and a fixed price per pound of nutrient (e.g., \$5/lbs.) would b applied to determine the total cost of offsets required for the system. The c the offset would simply be added to the total cost of construction or reconstruction. Funds generated by the offsets would go into a newly established revolving fund that would assure that BIVIPs would be implement completely offset loads from the

systems. Individual homeowners, develop or contractors would not have to seek out and acquire individual contracts for offsets under this system. They would simply pay a onetime fee into an established fund.

Miscellaneous Suggestions

Throughout the document, summarizations of and citations for reports, articles and data are not presented as there are no footnotes or bibliography as part the draft WIP.

For instance, in the conclusion of the Executive Summary DEP cites the result the Susquehanna River Basin Commission's (SRBC) monitoring stations for the period of 1985-2008. No citation to the dataset(s) or to any of SRBC's report given. In many other occasions reports are cited or discussed in the text but not included in a bibliography. For instance, on page 10 several reports are noted (Smith et al. 1992 ; Kemp et al. 2000; Dennison et al. 1993 ; Kemp et al. and Gallegos 2001). On page 115 a report by "Edwards and Willard" is discus but no information pertaining to it, such as year or title is given. Similarly, on page 129 there is a reference for a 2008 Walter and Merritts paper but again there is no footnote or bibliography detailing common information such as the title of the paper or publisher.

In each of these cases, the lack of appropriate referencing of the cited documents makes it difficult to obtain and review the information cited by DEP. The final WIP should correct this issue throughout the document. PA may be required to defend its WIP in court and a complete administrative record is imperative

DEP does not present a map or other information regarding of the four maior basins/watersheds discussed in the draft WIP.

The draft WIP relies heavily on presenting the loads and subsequent Load Allocations (LA) and Wasteload Allocations (WLA) for the Susquehanna and Potomac River Basins along with the Eastern and Western Shore Watersheds. Yet, there is no presentation of geographical boundaries of these watersheds. There is also no discussion regarding the size of each watershed (e.g., square miles) or the general land use (past, present, and predicted future)--all of which are vitally important in the examination of the assigned WLAs and LAS. It also is important for citizens and the regulated community to comprehend precisely in which basin/watershed they lay for regulatory and programmatic considerations.

DEP should address the oversight by including such information in the final WIP.

DEP should present the area loads per land use along with the best management practice (BMP) efficiencies in an additional Appendix.

Although this information is available from the EPA Chesapeake Bay Program, it can be difficult and time-consuming to locate. Reviewers of the draft WIP who do not have the time seek this information but do have an interest in it, would benefit from its presentation in the draft WIP.

The Susquehanna River trend data presents an incomplete summary of SRBC's monitoring study results and should be expanded upon to reflect a holistic analysis of the data.

SRBC's report [FN26] presents the most recent summary of the water quality monitoring trends within key locations of the Basin. Although the data indicate improvement, particularly in total nitrogen load reductions, context is important.

When one is orders of magnitude above a sustainable load (i.e., loads need to achieve the TMDL), a decrease from the long term mean load doesn't really validate significant progress.

Several parameters (particularly several phosphorus species) have rather large errors/uncertainty reported for the 2008 value. In many cases, if one considers that the true value is within the range then there is little or no statistical reduction and, in some cases, possibly an increase in load. Even with the error/uncertainty around a 2008 value, several phosphorus species, particularly the dissolved and dissolved orthophosphorus, are notably higher than in previous years. Total phosphorus is within the mean or slightly higher in 3 of 6 sites; thus indicating no real trend. Exceptions are the Conestoga and Mari sites.

Nitrogen and associated species appear to have decreased in 2008 versus the long-term mean, while flow remained at or very near the average for most sites. Errors/uncertainty around nitrogen species are not very large and when considered do indicate a true reduction in most cases.

Sediment fate and transport is complex, a year's worth or several years' worth reductions may not necessarily reflect a decrease at the edge-of-stream. Reporting on the fine and sand sediment fractions of sediment, along with total suspended sediment, would yield additional insight into the sediment issue.

In short, the data does appear to indicate that, generally, 2008 nitrogen load is a decrease from the long-term mean. However, the analysis does not put this decrease into the perspective that given the significant amount of work required to reach TMDL cap loads, this represents a small fraction of the overall necessary reductions. Furthermore, even if the reported reductions hold, the rate of reduction is still relatively slow and would not be expected to achieve a TMD in a timely manner. Additionally, the phosphorus data is concerning and could have a dramatic effect on local water quality as well as the Bay. Why the reversal to an upward trend in phosphorus (continuation of the "banana" plots) [FN27], particularly the dissolved and ortho fractions, is speculative but important.

The "Pennsylvania 2009 Nutrient and Sediment Loads . . ." are notably different than those presented in EPA's draft TMDL.

On page 13 of the draft WIP, the sector loads from the phase 5.3 watershed model are presented as numerical values. However, when converted to percentage of total load, these percentages are vastly different than those in Table 4.1 and 4.2 of the draft TMDL (page 4-6), except for agriculture. For instance, in the draft WIP on page 13 the urban/developed load is stated to deliver 6,704,000 lbs of TN/yr. This represents 6 percent of the total load of 106,413,000 lbs of TN/yr. In table 4.1 of the TMDL, "stormwater" is credited for 33 percent of the total load. Septic systems are documented with delivering 3,290,000 lbs/yr in the draft WIP, which is approximately 4 percent of the total load. The draft TMDL assigns septic systems a current load of 30% of the nitrogen. Similar discrepancies can be found for the other source sectors.

The "Projected Sector Loads ..." and tables in Appendix 4, are fundamentally different and therefore cannot be appropriately examined.

The "Projected Sector Loads" tables presented in page 23 through 28 of the draft WIP attempt to summarize pollutant load data for each basin/watershed along with percent of total, reductions, total allocation, LAs and WLAs. In numerous,

instances, these numbers are vastly different than those in Appendix 4.

For example, the Susquehanna CAFO nitrogen data on page 23 indicates that no information regarding 2009 loads is available but that a WLA of 870,000 is set. The nitrogen B2 table indicates that the 2009 CAFO load is 1,222,439 lbs/yr. In the same table, the MS4 load is presented as 805,923 lbs/yr with a 2025 cap load of 542,475 lbs/yr. In the table on page 23, the 2009 MS4 load is presented as the B2 2025 cap load of roughly 542,000 lbs/yr. This table also presents this as the final WLA; therefore indicating no load reductions called for from MS4. Similar discrepancies are present for each basin/watershed in each of the pollutant tables in Appendix 4.

Interestingly, no WLA reductions are called for from the construction, mining, and industrial stormwater sectors under the data presented in pages 23 through 28. According to the tables in Appendix 4, this is not the case. If this is accurate, however, it represents a disturbing lack of responsibility by these sectors and a disproportionate shouldering of the reduction burden to others, such as agriculture. It also apparently establishes an equability issue in that it that DEP appears to be proposing that construction activities which cumulatively do not cause an exceedance of the WLA will have a lesser set of erosion and sedimentation control requirements than those that would. Presumably, a permitted construction activity which would result in the construction WLA exceeded would need either be denied a permit or required to achieve a no net increase offset. Whereas, construction loads that would not cause the WLA exceeded would have no such requirements.

Curiously, the total nitrogen point source data for the Potomac Basin indicates that an additional 335,000 lbs/yr of nitrogen compared to the 2009 load is allocated. The B2 data for this sector does not appear to support the increase presented in the table on page 23; yet, if it is correct, it appears to violate the "net increase" requirement for new or expanded loads from sewage treatment facilities.

The Point Source total sediment load data for the Eastern Shore watershed in "Pennsylvania 2009 Nutrient and Sediment Loads ..." tables indicates a disproportional sediment load.

On page 28 of the draft WIP, the 2009 and WLA Eastern Shore Watershed point source sediment load is presented as 52,300 million lbs/yr. Comparatively, the Susquehanna Basin is cited as having a point source sediment load of 16.1 million lbs/yr; 0.36 million lbs/yr for the Potomac, and 0.0 million lbs/yr for the West Shore. The TSS data presented for point sources of all types in Table B2 does not support this information.

The Point Source total sediment load data in Table B2 indicates a notable sediment load from this sector, contrary to previous information and the underpinnings of the Point Source Allocation Strategy developed under the Tributary Strategy.

Divergent from the data presented in page 23 through 28, TSS data in Table B2 indicates a notable load of sediment from point sources. For instance, in the Susquehanna Basin the 2009 significant municipal wastewater load is presented as 19,344,917 lbs/yr. This presumes the subtotal title is incorrect in reference to nitrogen and that the table title is correct. Although this is substantially less the load attributed to agriculture and urban/suburban stormwater, it nonetheless represents a load that was not considered under the Point Source Allocation Strategy. Notably, Table B2 does not call for any reductions below the 2009 while other sectors must reduce loads substantially. For instance, agriculture is tasked with reducing sediment by 166,600,699 lbs/yr by 2025. This disproportionately shifts the burden of achieving TSS reductions to the other sectors.

Given the magnitude of the point source sediment load and the lack of consideration of such loads in the permitting process previously developed, it appears necessary to re-examine the Point Source Allocation Strategy to include TSS limits and reductions in existing and future NPDES permits.

Conclusion

The TMDL is real. The ramifications of failure are real.

We appreciate DEP's candor and acknowledgement that improvements to their first draft of the WIP are necessary. We encourage EPA and DEP to continue to develop mechanisms and funding to strengthen the WIP, with special emphasis on achieving reasonable assurance. Achieving non-point source compliance and quantifiable stormwater improvements for our communities, supporting our County Conservation Districts, and providing funding for nonpoint source improvements are key elements of the WIP

Pennsylvania must ensure that all stakeholders work together to ensure that the necessary components of funding, staffing, technical assistance, enforcement, and regulations-are sufficient enough to achieve our pollution reduction goals.

We believe that the recommendations we have made would meet and exceed the thresholds for reasonable assurance established by EPA and encourage DEP to undertake serious consideration of them.

[FN1] Pennsylvania's Chesapeake Bay Tributary Strategy. Prepared by the Pennsylvania Department of Environmental Protection. December 2004.

[FN2] EPA Comments on the Pennsylvania Draft Phase I Watershed Implementation Plan, September 27, 2010. http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/WIPEVALUATIONS/PortfolioOfDraftWIPs.pdf.

[FN3] Crable, Ad, Lancaster Intelligencer Journal and New Era, EPA Discusses Farm Inspections, January 26, 2010

[FN4] Natural Resources Conservation Service-USDA, Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Watershed, Review Draft, October 2010.

[FN5] Pennsylvania Department of Environmental Protection, Pennsylvania Chesapeake Watershed Implement Plan, September 2010, page 81.

[FN6] Crable, Ad, Lancaster Intelligencer Journal and New Era, Feds Hit Farm for Pollution, June 2, 2010

[FN7] Department of Environmental Protection, Pennsylvania's Proposed Chesapeake Bay Agricultural Water Quality Initiative, October 1, 2009.

[FN8] Natural Resources Conservation Service staff, State Technical Committee meeting, June 1, 2010.

[FN9] Pennsylvania Association of Conservation Districts, Inc., "Budget Requests for Conservation Districts, Fiscal Year (FY) 2010/11," submitted to the Pennsylvania General Assembly.

[FN10] Coalition Proposes Fair Share Funding Plan to Address Chesapeake Bay and Statewide Water Quality Mar By coalition members: Chesapeake Bay Foundation, PA Farm Bureau, PA Municipal Authorities Association, Association of Conservation Districts, Pennsylvania Builders Association

[FN11] Brubaker, Jack, Lancaster Sunday News, Unkind Cuts, October 31, 2010.

[FN12] Sweeney, B.W, T. L . Bott, J. Jackson, L. Kaplan, J.D. Newbold, L. Standley, W.C. Hession, and R. Horwitz," Riparian deforestation, stream narrowing, and loss of stream ecosystem services," PNAS, September 2004; 101: 14132-14137.

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- [FN19] MacRae, C. 1996. Experience from morphological research on Canadian streams: is control of the two-year frequency runoff event the best basis for stream channel protection? In Effects of Watershed development Management on Aquatic Systems. L. Roesner (ed.) Engineering Foundation Conference. Proceedings. Snow UT. August 4-9, 1996. pp. 144-160.
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Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.012

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[The document submitted was partially illegible along the right margin. The text below have been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Watershed Implementation Team Members

Dear Watershed Implementation Plan Team Member:

I want to personally thank each of you for the time, effort, and resources you and you organizations have committed to the Watershed Implementation Plan (WIP) process. The Chesapeake Bay Foundation (CBF) also acknowledges and thanks the Department of Environmental Protection (DEP) for developing and implementing a thorough and open stakeholder process for constructing the WIPs.

In order to construct a WIP that not only contains proposed BMPs to meet the modeled reduction requirements, but includes the implementation capacity to assure that those BMPs are put "on the ground", we have prepared a look at the 2008-2009 implementation progress to compare with the current milestone commitments. This is instructive in seeing where we have the resources or capability to succeed, and where we must placed increased emphasis.

Methodology

As you know, Two years ago the federal and state governments determined that shorter-term milestones would improve accountability, accelerate pollution reductions, and increase the likelihood of meeting pollution reduction targets for the Chesapeake Bay and its Tidal Tributaries. The jurisdictions announced their first milestones in May 2009 and laid out plans to meet these commitments over the three years between January 1, 2009 and December 31, 2011. A copy of Pennsylvania's first milestone commitment is provided as Enclosure A for your convenience. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1]

For comparison, we have obtained from EPA Pennsylvania's reported BMP implementation levels from the 2008 and 2009 bay model runs (v. 4.3). This information and the milestone commitment levels for the pertinent BMPs are presented as Enclosure B. Additionally, we calculated the percentage of the three year milestone which has been achieved in the first year. While not every BMP would be on a linear trajectory, this does give some indication of whether we are progressing at a rate that will result in PA meeting our 2011 milestone commitments.

As you evaluate and comment on the draft Phase I WIP, we ask that you consider enclosed information and comments that we believe are critical creating a Plan the meet the requirements of the TMDL and avoid Pennsylvania being faced with a "Backstop WIP" from EPA or other consequences from the EPA letter.

Results

While assessing the practices and implementation numbers in Enclosure B, several things are apparent. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1] The first is that we are doing very well in some areas and lag substantially in others. The second interesting observation is that the areas where is doing well can be grouped into three categories:

1. Practices that have broad acceptance and are part of accepted, profitable practice, such as poultry phytase, cover crops and no-till farming.
2. Practices that are supported by robust federal programs, such as animal waste systems and forest buffers.
3. Practices that are required by regulatory programs with oversight capacity such as wastewater treatment plant upgrades.

A third notable observation is that is that, due to inadequate tracking of BMPs in-state with private resources, PA is dramatically under-reporting some BMPs, such as cover crops and no-till acres. Numerous other BMPs are also likely under-represented to lesser extent.

The fourth item, and the one of great concern with respect to crafting the WIP, is that the areas where we are dramatically behind on BMP implementation are those where we have acknowledged inadequacies in programs or funding. Nutrient management and Conservation Plan targets in the milestone are far behind schedule. These plans set up the implementation demand for many other BMPs in future years. The gap in this area is largely the result of a lack of compliance, outreach and technical assistance. Our state budgets have not addressed the funding and staffing needs of the County Conservation Districts, who are the front line for doing this work. Another gap is the lack of progress on addressing stormwater runoff from our urban/suburban centers. As discussed by the Stormwater WIP team, PA continues to struggle with developing a clear strategy and has yet to commit the necessary resources to implement improvements in this area.

Wastewater Treatment

Pennsylvania's strategy [FN28] with regard to permitting for wastewater treatment facilities appears to be on track. For all phase 1 facilities, cap loads based on concentrations of 1.0 mg/l TN and 0.8 mg/l TP at design annual average daily flow have been placed in permits and will become effective on 10/01/2010. Permits for phase 2 facilities will be effective 10/01/2011; and phase 3 facilities on 10/01/2012. Permit limits will be achieved through capital upgrades, nutrient trading, or combinations of both.

We continue to support DEP's wastewater treatment strategy as the most cost-effective and equitable approach towards achieving this sector's cap load allocation; however, we remain concerned that financing through grants and loans remains limited, particularly in comparison to Maryland and Virginia. Given the current economic conditions, prioritizing existing statewide water infrastructure funding towards projects with the Bay watershed that facilitate achieving this sector's cap load should be explicitly integrated into the decisionmaking criteria of PENNVEST and other state financing sources.

Agriculture

Pennsylvania's progress on the Ag milestones has been a mixed bag. As noted earlier we are on or ahead of implementation schedule for a number of key BMPs, including buffers, cover crops, and no-till. We also know that we

are substantially underreporting some BMPs, including cover crops and no-till. According to recent estimates from evaluations in Bradford and Lancaster counties, we are under-reporting by as much as 40 to 80 percent.

The problematic issue for the agricultural sector is the degree to which we are behind in developing nutrient management plans and conservation plans. This reality is consistent with the compliance problem facing PA's agricultural sector, as an estimated 50-60% of farms do not have the required conservation plan, consistent with PA Chapter 102, and manure management plan. These plans serve as the conservation and compliance road maps for farms and drive the future implementation of many BMPs.

The grave concern about PA's performance in these areas is threefold:

1. It translates to a continued problem with compliance, leaving water quality unaddressed, and farms subject to enforcement.
2. It may lead to greater difficulties in meeting the implementation goals for other BMPs in future years.
3. Our ability to meet these targets is predicated on the availability of technical assistance.

The technical assistance necessary to develop conservation plans and nutrient management & manure management plans has primarily come from the USDA NRCS and our County Conservation Districts. State funding for conservation districts has been steadily declining, not increasing as will be necessary to reverse the current trend. NRCS staffing has also been declining, while their project funding has increased - creating a growing bottleneck. Further, preparation of these plans by private sector agricultural consultants has been hampered by the substantial reduction of the Resource Enhancement And Protection (REAP) tax credit, the lack a robust, streamlined Technical Service Provider (TSP) scenario with USDA, and the lack of compliance outreach and enforcement.

The Phase I WIP must address the issues of compliance, an increase in technical assistance availability, and resource availability. CBF recommends that the WIP T and the Commonwealth consider incorporating the following concepts in the WIP:

--Develop an Agricultural Compliance Plan which identifies the process, resources and timelines necessary to achieve compliance with state and federal requirements. Enclosure C is a copy of CBF's comments on PA D draft Ag. Water Quality Initiative. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1]

--Increase funding for the Resource Enhancement And Protection (REAP) credit to \$20 million per year. This efficient and over subscribed tax credit program has established a tremendous track record of matching tax credits private resources to achieve conservation goals.

--The Commonwealth should work with the USDA NRCS to develop a broader, more flexible TSP to enable greater private sector delivery of critical conservation programs such as EQIP and CBWI. PA's private agricultural groups should be enabled to play a greater role in providing the critical technical assistance necessary to implement the federal agriculture program dollars.

--Increase the state funding to County Conservation Districts. The WIP should estimate the additional staffing and resources for the conservation districts to implement the additional outreach, compliance and technical assistance

necessary for implementation of the Agricultural portion of the B, TMDL and provide the necessary increase in future budgets beginning in the 2011-2012 budget.

--Improve Phosphorus Management. The current Phosphorus Index allows phosphorus to accumulate in some soils, and therefore does not adequately protect water quality. Nutrient management planning requirements should be revised to prevent over-saturation of soil phosphorus, such as by incorporating Saturation into the P Index, without losing the protection that the P Index provides to steep slopes and areas near streams.

--Develop a system for tracking all BMPs. As noted above, we do not effectively track nor, therefore, report and model most BMPs that are privately funded and not part of an organized program. CBF agrees with many other partners that we are dramatically under-reporting numerous key BMPs and accurately tracking those BMPs is critical.

Stormwater

Pennsylvania's decentralized and fragmented local governmental system presents a particular conundrum in addressing pollutant loads from urban and suburban runoff evidenced by the extensive discussions within the stormwater WIP workgroup, achieving and maintaining the necessary reductions from this sector under our current framework is unlikely, if not impossible, and certainly very costly.

In order to circumvent such challenges, we believe that the following recommendations should be undertaken by DEP and, where appropriate, the legislature:

--Employ a scientifically justifiable and accurate methodology to determine the MS4 pollutant load. Pennsylvania's currently-proposed methodology equates the publicly owned roads with the MS4 drainage network. Under this methodology, the land area contributing to the MS4 would not be calculated as part of the load. This approach is inadequate and scientifically unjustifiable and, if implemented, could result in other sectors shouldering the burden for a large percentage of the urban stormwater load. And, as noted in EPA's July 9, 2010 letter to DEP, the methodology is inconsistent with the Clean Water Act and MS4 permitting program. However, we understand and appreciate the unique difficulties Pennsylvania's fragmented local governmental system present in instituting an MS4 program, particularly a program which achieves quantifiable reductions in stormwater load. These issues are especially evident in the context of a TMDL. We recommend that DEP consider employing the methodology used in The Christina River Basin Watershed Stormwater Source TMDL (2006), [FN 29] which included all or parts of MS4 communities in Pennsylvania, Delaware, and Maryland. The Christina TMDL MS4 WLA methodology could be employed as the stormwater load calculation approach in the Phase I WIP with the requirement that all new and reissued MS4 permits contain requirements for delineating the drainage areas of each outfall within the MS4 in order to more precisely determine the WLA versus LA loads within each urbanized area.

--Revise Act 167 requirements to explicitly and quantitatively integrate achieving and maintaining TMDL WLA and LA allocations for stormwater. When passed in 1978, Act 167 was a unique and progressive step towards better stormwater management. But, in many ways, the Act has outlasted its usefulness and needs to be updated to reflect today's regulatory realities. With updates that require preventing new sources of stormwater pollution and addressing problems from existing development, Act 167 could once again serve as the framework for planning and implementing stormwater management relevant to the challenges of today. As a result, Act 167 could be used as the fundamental tool to achieve compliance with the stormwater-related requirements of the Chesapeake Bay TMDL, as well as local TMDLs.

- Prioritize passage of House Bill 1390, commonly referred to as the Integrated Water Resources Act. HB 1390 would set a framework for a more consistent, coordinated, and comprehensive county-based approach to stormwater management in the Commonwealth.
- Establish a sustainable source of funding to support local implementation of new and the retrofitting of existing stormwater practices and initiatives. Through legislation, regulation, or policy establish the framework for the creation and operation of local Authorities, Utilities, or Management Districts and/or create sustainable funding sources that enable entities to collect fees and generate revenues dedicated to planning, constructing, monitoring, maintaining, improving, expanding, operating, inspecting and repairing public and private stormwater management infrastructure.
- Establish through regulation or policy a pollution offset program for all or increased permitted discharges. President Obama's Executive Order on the Chesapeake Bay Foundation's settlement agreement with EPA commits: requires that states must offset all new nitrogen, phosphorus and sediment by reducing them from another source, including new or increased permitted discharges. This requirement includes new or increased permitted discharge from construction and post-construction stormwater. It should be noted that this is not an endorsement of the concept of offsetting volume from new development which is entirely different.
- Through legislation, consider a statewide lawn fertilizer restriction. By ban the sale of all fertilizers designed for turf lands that contain phosphorus those that contain less than 25 percent slow release nitrogen. Further, by law prohibit the application of fertilizer that contains nitrogen to turf lands more than once a year unless required by a valid soil test. Citizen education programs be needed to ensure homeowner compliance with the once-a-year nitrogen application rate. Alternatively, the passage of a local municipal ordinance which effectively achieves the same outcome could be an explicit requirement of a reissued and new MS4 permits could be considered.
- Create by law a state incentive program for the redevelopment and reduction of impervious surfaces in existing urban corridors. Incentive: could include tax reductions/credits, density bonuses, parking waivers, fee reductions, and rapid project approval. Some local governments already provide a mix of incentives for certain actions. Incentives should only apply to projects that are either in US census-designated urbanized, consistent with the local comprehensive plans, and include specific sound land use elements, such as supporting higher density, compact development, transit-oriented design, mixed uses, increased open space/buffers/tree canopy, and onsite capture and reuse.
- Close the "no net increase" sewage treatment loophole for new septic systems. Unlike new or expanded sources of sewage discharges, under current Pennsylvania policy septic systems are not required to acquire offsets for nitrogen loads. Through regulation or policy, all new or rehabilitated septic systems should be required to either install nutrient-reduction technology or purchase offsets equivalent for the expected life of the system.
- Establish a series of urban stormwater pollution reduction demonstrations. While moving forward with permits that meet the pollution reduction requirements of the Federal MS4 program and the Chesapeake Bay and local TMDLs, prioritize and implement a series of demonstrations to implement on-ground installation of new and retrofitted stormwater practices designed to quantitatively reduce stormwater pollutant loads within currently suburbanized/urbanized areas. The demonstrations should be sufficiently detailed so as to identify "critical sources areas" of stormwater load within the pertinent area and the most cost-effective solutions available to address these areas. Such an effort will provide valuable lessons learned as to how local implementation can occur and be integrated comprehensively into latter phases of the WIPs.
- Develop a stormwater pollutant offset program for existing developed areas. In some areas, it may make sense to achieve load reductions through an offset program to be consistent with local targets and the cap allocation in the TMDL. A program that is designed at the appropriate spatial scale (e.g., county) that allows local governments to purchase pollution offsets in lieu of on-the-ground practices should be considered. Such an effort, however, should not relinquish local entities from not achieving an appropriate baseline and threshold prior to being able to offset remaining loads.

Conclusions

CBF strongly supports the milestone approach to restoring the Chesapeake Bay. The use of short-term targets should, in theory, provide for greater accountability and accelerate pollution reductions and more responsive adaptive management. While Pennsylvania has made significant, accelerated progress on some specific BMPs, the Commonwealth has demonstrated an inability to deliver on core programmatic items that are critical to achieving the milestone and the longer term goals of TMDL implementation. The new WIP must contain programmatic and resource commitments necessary meet all the milestone commitments and to accelerate nutrient pollution reductions.

The WIP is Pennsylvania's final opportunity to create a strategy for implementing the TMDL that is built by PA, for PA, and utilizes the details and efficiencies that are specific to the Commonwealth. Integration of the necessary resources and implementation strategies to achieve the reduction goals is critical to the success of the WIP and its acceptability to EPA. CBF urges you to consider the recommendations contained in this letter and to develop similar recommendations for consideration by the WIP Teams and the Commonwealth. If we do not construct a strategy that that is credible for accomplishing the necessary reductions, the Federal Government will use the authorities and digression at its disposal to attempt to accomplish those reductions in Pennsylvania. The outcomes of that approach will be for more difficult and less efficient for the stakeholders and the Commonwealth.

I urge you to consider the recommendations enclosed, the ramifications of inaction insufficient action, and the opportunities that we have to create a strategy that cre clean water for the Chesapeake watershed and the rivers and streams of Pennsylvania.

Enclosure A : Pennsylvania's First Milestone Commitment

[See EPA-R03-OW-2010-0736-0732 for the enclosure.]

[FN28] Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting. PADEP. 2007 .
http://www.portal.state.pa.us/portal/server.pt/community/chesapeake_bay_program/10513

[FN29] This document can be found at: http://www.epa.gov/reg3wapd/tmdl/pa_tmdl/ChristinaMeetingTMDL/index.htm

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.014

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Chesapeake Bay Foundation's Comments for Pennsylvania's Proposed Chesapeake Bay Agricultural Water Quality Initiative

The Chesapeake Bay Foundation agrees with the goals of "Pennsylvania's Proposed Chesapeake Agricultural Water Quality Initiative." We applaud the objectives of nutrient and sediment reduction on all farms within the Chesapeake Bay watershed, while maintaining the economic viability of farms and meeting federal and state laws and Chesapeake Bay legal requirements.

We consider it appropriate that the initiative focus in part on education and outreach to meet existing regulatory requirements for Erosion and Sediment Control and Manure Management, along with technical assistance to meet these requirements, especially for farms that have been outside of the realm of the Nutrient Management and Concentrated Animal Feeding Operation (CAFO) program. We also believe that compliance assurance coupled with targeted enforcement actions are needed operations that are not taking the necessary steps to comply with these requirements, and that enforcement actions will serve as an incentive to encourage other farms to comply with these regulations to reduce nutrient and sediment pollution to Pennsylvania's waters.

The Chesapeake Bay Foundation recommends the following changes to strengthen the initiative:

1. Targeted Watersheds

The targeted watershed approach must be complemented with a broad and robust compliance outreach effort throughout the Chesapeake Bay watershed. The focus on small watersheds is very limiting, especially since Pennsylvania has approximately 5,500 miles of streams impaired by agricultural pollution alone. Focusing on a small number of watersheds at any given time will limit DEP's ability to restore all impaired streams and the Chesapeake Bay in a timely fashion. The effort within the prioritized watersheds should not eclipse the effort throughout the watershed.

Also, there are DEP, Conservation District, and other relevant staff located throughout the Chesapeake Bay watershed, including those in small watersheds not in the initial prioritization efforts for outreach, education and enforcement are essential. A targeted watershed focus without complimentary outreach to farms throughout the watershed could allow these staff, as well as the farmers in those areas, to be complacent and not take the necessary steps to improve water quality.

2. Total Maximum Daily Load Compliance

All Manure Management Plans and Erosion and Sediment Control Plans, and their associated conservation practices, should be developed so that they will be adequate given expectations for agriculture's portion of local and Chesapeake Bay Total Maximum Daily Loads (TMDLs). Individual plans satisfying only state and federal regulatory requirements could be insufficient to reduce nutrient and sediment pollution to meet the TMDL. This would require further outreach and effort to refine plans and encourage adoption of additional conservation measures, adding to the work load of agency staff. It would also impose significant hardship for farmers who could be required to develop multiple plans in succession.

The Manure Management Plans and Erosion and Sediment Control Plans should address all measures needed to meet both water quality goals and regulatory requirements. For example, a farm with contour strips and manure application

setbacks from streams may satisfy regulatory requirements, but the addition or substitution of no-till cultivation, cover crops and riparian buffers may be needed to address water quality goals. The plans should include these practices so that farms are not faced with the further challenges at a later date to establish additional practices.

3. Concentrated Animal Feeding Operations

The proposed plan includes working with EPA Region 3 to improve the CAFO program. The Chesapeake Bay Foundation strongly recommends that the program designate livestock operations with discharges as CAFOs, as specified in the federal CAFO rule. The farms should have an opportunity (within 60 days) to correct the discharges before designation. The goal should be to remove the discharges, rather than expand the number of farms under the CAFO program.

Farms' efforts to prevent CAFO designation would be a valuable tool to address problems such as: livestock directly depositing manure in streams, stormwater flowing from manure management facilities, and other sources of stream degradation. CAFO designation would provide a regulatory tool to address some of the most significant sources of pollution to the Commonwealth's waters.

In Pennsylvania, requiring farms to eliminate discharges or face regulation as CAFOs is likely to be a more effective tool to improve water quality than lowering the threshold of animal numbers to include more farms as CAFOs.

4. Enforcement

The proposed initiative lacks necessary details on the "tiered compliance process." For example, it does not specify the timeframe provided to farms to comply with requirements. It provides for enforcement discretion that is not detailed. "Escalated enforcement" is not defined. There are no timelines for ensuring that all farms will have the necessary plans developed and implemented.

The initiative should focus enforcement on the most problematic farms first. Complaint-driven enforcement of environmental regulations is inadequate because it drives regulatory action to the farms where there are observant neighbors, not necessarily where the greatest pollution risks exist. Throughout the watershed, there are farms that have not participated in voluntary technical and financial assistance, and some of these operations contribute to serious water quality problems. Publicized enforcement on these farms would serve as an incentive to many others to quickly develop the plans and establish the conservation practices needed on their farms to avoid similar regulatory action.

5. Details needed

Most importantly, the proposed Chesapeake Bay Agricultural Water Quality Initiative is lacking some of the most important details to assess the potential effectiveness. Achieving the Initiative goals will require a substantial revision of existing Conservation District and DEP staff job descriptions and/or expectations to prioritize a significant increase in outreach and compliance. The plan should specifically address how this technical assistance and enforcement will occur. The draft begs many questions:

- What is the timeline? How many farms will have plans developed each year? When will the plans be implemented?
- How and when will farms be notified of the requirements?

- What type of outreach and educational activities will be conducted?
- Who will conduct these outreach and educational activities?
- What will be the specific roles and responsibilities of Conservation District and DEP staff?
- How will other partners, such as the USDA Natural Resources Conservation Service, Penn Cooperative Extension, Pennsylvania Department of Agriculture, PennAg Industries Assoc Pennsylvania Farm Bureau, Chesapeake Bay Foundation, private sector technical assistance providers, and other public agencies, agricultural and conservation organizations collaborate

Recommended strategy for reaching compliance throughout Chesapeake Watershed

The outreach, education and enforcement requirements to meet the Chesapeake Bay Agriculture Water Quality Initiative are immense, but they are achievable goals with a concerted effort. The Chesapeake Bay Foundation provides the following estimates as a framework to ensure that every farm across the Chesapeake Bay watershed develops and implements the necessary plans.

According to the Census of Agriculture, Pennsylvania's portion of the Chesapeake Bay waters includes approximately 40,000 farms needing Erosion and Sediment Control Plans, and about livestock operations needing Manure Management Plans. About 2,000 already have Nutrient Management Plans, so the remaining 16,000 require Manure Management Plans. The Lower Susquehanna Watershed should see the most emphasis initially, because this area contributes the greatest nutrient and sediment loads to the Chesapeake Bay and has greater staff resources. Lower Susquehanna Watershed contains about 21,000 farms, approximately 10,000 of which are livestock.

Some farms will require only verification that they have current Erosion and Sediment Control Conservation Plans and Manure Management Plans that are being implemented on schedule. Some farms will require only modest updates to their plans to address water quality concerns. A third of farms will require far more assistance in developing and implementing plans where none currently exist. Anecdotal information suggests that about approximately one third of farms are in each of the three above groups. We estimate that an average of two days of technical assistance staff time per farm are needed to develop a basic Erosion and Sediment Control plan with a Manure Management Plan in the case of livestock operations.

CBF's assessment of technical resources estimates that reaching about 5,000 farms each year is possible, so that developing the necessary plans for all farms in the Chesapeake Bay watershed is an achievable goal within eight years. These estimates include:

- 49 Chesapeake Bay Technicians in Conservation Districts, that could spend about 2/3 of the time (140 days/year) on outreach and plan development, with an average of two days per farm. They could develop 3430 plans annually.
- About 40 Nutrient Management Technicians, Erosion and Sediment Control Technicians and other Conservation District staff, that could spend 10% of their time, or about 21 days/year to develop 420 plans per year.
- USDA Natural Resources Conservation Service assistance with approximately 500 plans per year through various programs, such as the Environmental Quality Incentives Program and the Conservation Stewardship Program.
- Eight Department of Environmental Protection regional staff encouraging the most problematic farms to develop the necessary plans immediately, through the private sector if Conservation District staff unavailable. They could reach about 50 farms per year per person, or about 400 total plans per year.
- The private sector's development of an additional 250 plans in the initial year, and more in the future. These people must play a significant role in plan development and implementation, and their ranks would likely expand with demand,

as farms see stronger regulatory requirements or nutrient credit trading opportunities.

--Farms in geographic proximity could be grouped together (possibly with Conservation District assistance) to obtain lower cost bids for planning.

--Additional funding from EPA could support private sector plan development.

--Farms that pollute Pennsylvania's waters should develop the necessary plans immediately, and many will need to rely on private sector planners, or face enforcement actions.

According to these estimates of combined technical resources of the public and private sector, about 5,000 farms in the Chesapeake Bay Watershed would have plans each year. Initial efforts should be targeted to livestock operations currently lacking plans. All livestock operations in the Lower Susquehanna watershed should have plans by the third year, and by the fifth year in the rest of the watershed. By the eighth year, all Chesapeake Bay Watershed farms should have an Erosion and Sediment Control plan with a Manure Management Plan when needed, although some may need adjustments.

Timeframe for plan development:

[See EPA-R03-OW-2010-0736-0732 for the figure.]

Once plans are developed, we recommend the following timeframe for implementation and establishment of the necessary conservation practices.

--Manure application rates, setbacks, management of temporary storage areas, and winter application criteria will be applied according to Manure Management Plan immediately after plan development.

--Livestock management near streams should be addressed within three months of plan development (when required in plan). People should be encouraged to participate in the Conservation Reserve Enhancement Program (CREP) when possible. Public funds should be used when buffers of at least 35 feet are included. Flexible fencing without public funds is an option for a quick remedy when needed.

--Structural changes such as animal concentration areas or manure storages must be completed within three years of plan development.

--Cover crops, no-till cultivation, and other in-field practices should be established during the crop year when possible, but at a maximum, within two years when crop rotations and equipment purchases cause delays.

The Chesapeake Bay Foundation recognizes that this strategy is ambitious, but can be achieved (concerted effort). It will require significant outreach and technical assistance, combined with the enforcement of cases where there are verified pollution problems. These enforcement cases will encourage many people to seek the necessary assistance, rather than relying solely on time-consuming public agency assistance. Since requirements for Erosion and Sediment Control Plans and Manure Management Plans have been required for over 30 years, although now undergoing major revisions, farms that are able to receive assistance from public agencies should not be exempt from the requirements, nor should they be expected to seek help from the private sector.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.015

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The text below has been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Dear Mr. Capacasa:

As you know, CBF is one of the members of the Chesapeake Water Implementation Plan (WIP) Urban-Suburban-Rural Workgroup in Pennsylvania such, we have been participating in the discussions regarding the development WIP for the State. The purpose of this letter is to thank EPA for its detailed letter Pennsylvania DEP dated 9 July 2010 regarding DEP's proposed MS4 methodol part Pennsylvania's stormwater WIP.

However, we remain concerned given that EPA did not explicitly prohibit DEF employing the proposed methodology or indicate what, if any, ramifications may o this or a similarly inaccurate methodology were employed. The letter also d appear to fully indicate the details of what an acceptable methodology is; for ins the two MS4 methodology options set forward by EPA to the Bay states.

It should be noted that we continue formally express our opposition to using the recent methodology proposed by DEP to determine the boundaries of the MS4 s areas in assessing the current load from MS4s. In its most recent correspon regarding this methodology [FN30] Pennsylvania states:

For Pennsylvania, there are no GIS/spatial data that delineate the actual boundaries of the MS4 service areas. In discussions with Barry Newman, DEP Chief of Stormwater Planning and Management, it was decided to define the MS4 service areas based on the area of roadway within each MS4 municipality that lies within the urbanized area boundary. Urbanized area extent will be derived from the US Census 2000 (2009 corrected version) Urbanized Areas data. PennDOT and the Pennsylvania Turnpike Commission maintain MS4 permits for their roadways within the Urbanized Area portions of the State. The area of their respective roadways lying within the MS4 urbanized areas will define the boundaries of these MS4 service areas. [FN31]

Essentially, by using this approach Pennsylvania would be equating the publicly owned roads with the MS4 drainage network . Under this methodology, the land area contributing to the MS4 would not be calculated as part of the load. This approach is inadequate and we believe scientifically unjustifiable.

The reasons why the proposed approach is scientifically questionable are numerous and we will not detail them herein. In brief, however, this methodology threatens to significantly under-represent the pollution load from MS4 service areas. In turn, it will result in inappropriately depressed responsibilities for load reductions from MS4 sources areas. Additionally, by employing such a limited definition of the MS4 area, DEP would be confining the suite of potential load reduction BMPs available to MS4s to those that are only applicable on or alongside roadways.

EPA has issued a document that examines how TMDLs with storm water sources were created. [FN32] It is important

to note that EPA has included a disclaimer in this document clarifying that it is not intended to serve as a substitute for the CWA regulations and does not impose legally binding requirements on EPA or states. Having said that, none of the methodologies approved in these 17 examples appears to be similar to Pennsylvania's methodology.

In our research, we have not found another instance where EPA has approved the use of this type of an approach for the calculation of MS4 loads and associated load reductions as part of a TMDL; its use or approval in this case would effectively undermine MS4 permitting programs across the country. Our analysis indicated that in general the methodologies used in past efforts have been similar to the two EPA has repeatedly proposed to Pennsylvania as follows:

--Provide a map of the MS4 service areas including facilities like DOT roads and highways, state and federal institutions with the Chesapeake Bay drainage. EPA will use area-weighted averages to assume all loads from all land uses within the service area are part of the waste target load.

--EPA will use area-weight averages to estimate current loads from urban land uses within MS4 jurisdictions, using jurisdiction boundaries originally submitted by the states in September 2008. [FN33]

We find these two approaches reasonable and scientifically reliable. However understand and appreciate the unique difficulties Pennsylvania's fragmented governmental system present in instituting an MS4 program, particularly a program which achieves quantifiable reductions in stormwater load. These issues are especially evident in the context of a TMDL.

In 2006, an interesting and appropriate solution may be the methodology employed in The Christina River Basin Watershed Stormwater Source TMDL (2006) [FN34], which included all or parts of MS4 communities in Pennsylvania, Delaware, and Maryland. The Christina TMDL acknowledges that for the actual wasteload allocation in neither "the PA nor the DE MS4 permits identify the boundaries of the stormwater collection system contributing areas within each municipality. Therefore, it is possible to assign a WLA specific to the storm sewer collection areas within each municipality. Because these systems have not yet been delineated, the TMDL in nonpoint source loadings in the WLA portion of the TMDL. It is anticipated that the state's stormwater program will revise the WLA into the appropriate WLA and allocation (LA) as part of the stormwater permit reissuance; however, the load reductions in the TMDL will not change."

The Christina TMDL MS4 WLA methodology could be employed as the stormwater calculation approach in the phase 1 WIP with the requirement that all new and revised MS4 permits contain requirements for delineating the drainage areas of each within the MS4 in order to more precisely determine the WLA versus LA loads each urbanized area.

Finally, as you know, our settlement agreement [FN35] with EPA says that the Agency "expand the universe of MS4s" through new rulemaking. Specifically, the agreement states:

Pg. 7 - WHEREAS, on April 21, 2010, EPA issued for public notice comment a draft NPDES permit for the Municipal Separate Storm Sewer System (MS4) of the District of Columbia:

Pg. 16 - III.C.9.c. By July 31, 2010, EPA will issue an "MS4 Storm Permitting Approach for the Chesapeake Bay Watershed" that will identify key regulatory and water quality performance expectations EPA will consider when reviewing new or reissued draft state MS4 permits.

Pg. - III. D.12 - 12. By September 30, 2011, EPA will propose a regulation under section 402(P) of the Clean Water Act to expand the universe of regulated stormwater discharges and to control, at a minimum, stormwater discharges from newly developed and redeveloped sites. As part of that rulemaking, EPA will also propose revisions to its stormwater

regulations under the Clean Water Act to more effectively achieve the objectives the Chesapeake Bay TMDL. In developing the proposed rule, EPA will consider the following elements related to stormwater discharges both nationally and in the Bay watershed: (1) additional requirements to address stormwater from newly developed and redeveloped sites; (2) requiring development and implementation of retrofit plans by MS4s to reduce loads from existing stormwater discharges; and (3) expanding the definition of regulated MS4s. EPA will take final action on the regulation by November 19, 2012.

It would seem entirely inconsistent with this objective, set out in the settlement of our lawsuit against the Agency, for PA to be taking an action that would substantially shrink the universe of MS4 coverage, geographically, as it pertains to PA's stormwater WIP.

We are very aware and supportive of the time, money and effort being put forth by the EPA, the states and the other stakeholders in this endeavor. We also appreciate that EPA has reiterated several times that it has high expectations for the states to provide accurate information in its WIPs.

At this stage, it is crucial to ensure that all resources are being used efficiently and in a scientifically justifiable manner to ensure a WIP and TMDL that will produce the results are all seeking. CBF therefore strongly advocates using of one the EPA-recommended methodologies be employed to determine current load from MS4s in Pennsylvania.

In conclusion, we ask that EPA clearly state to DEP in formal format that not only is the proposed methodology scientifically indefensible, adversely precedent-setting, and in contravention to regulation and law, but that will it not be acceptable in Pennsylvania's WIP. Furthermore, such a statement by EPA should make clear that if DEP employs the proposed or a similarly unacceptable methodology, EPA will reserve the right to impose consequences that include, but are not limited to, those detailed in EPA's 29 December 2009 letter to the Bay states (i.e., the "consequences letter").

[FN30] This is the second methodology presented by Pennsylvania. The first proposal was that the MS4 service area would be calculated as 1% of the urban land within each of the relevant MS4 urban area boundaries, as defined by EPA. Once the MS4 service area is defined, EPA will estimate the load based on area-weighted averages to all loads from all land uses within the service area are part of the aggregated waste target load. The service area is described here refers to the 1% of the urban land within the relevant MS4 urban area boundary. Methodology to Develop Current Loads for Stormwater Sectors, Handout #1, May 27th Workgroup Meeting, May 25, 2010 - Revised by P May 27 workgroup meeting.

[FN31] Pennsylvania Sector Methodologies for Developing Current Loads, June 15, 2010, Attachment #3. PADEP.

[FN32] Total Maximum Daily Loads with Stormwater Sources: A Summary of 17 TMDLs.

[http://www.epa.gov/owow/tmdl/17 TMDLs Stormwater_Sources.pdf](http://www.epa.gov/owow/tmdl/17_TMDLs_Stormwater_Sources.pdf).

[FN33] Methodology to Develop Current Loads for Stormwater Sectors, Handout #1, May 25, 2010 - Revised by P May 27 workgroup meeting.

[FN34] This document can be found at: [http://www.epa.gov/owow/tmdl/17 TMDLs Stormwater Sources.pdf](http://www.epa.gov/owow/tmdl/17_TMDLs_Stormwater_Sources.pdf).

[FN35] Settlement Agreement, Fowler v. EPA, No. 09-005 (D.D.C. May 11, 2010).]

Response

PA's Final WIP improved its commitments to implementing its stormwater program. The WIP provides a strong description of Chapter 102 regulations and what they can enforce and regulate for no net change in stormwater runoff. EPA continues to

communicate with PADEP and is keeping close oversight of its stormwater permits and program. As you know, EPA has clearly articulated its interpretation of NPDES MS4 stormwater requirements and made specific comments regarding PADEP's interpretation of those requirements for MS4 systems and the proposed use in the context of the Chesapeake Bay WIP stormwater methodology. (See letter to John Hines, PADEP dated July 9, 2010; Letter to Glenn Rider, PADEP dated September 10, 2010; Email from Jon Capacasa to Hines and Rider, PADEP dated October 15, 2010; Letter to Glenn Rider PADEP dated November 18, 2010). While PA provided greater detail in its final WIP, EPA has determined that PA did not provide sufficient assurance regarding implementation of its stormwater programs. As a result, EPA included stormwater allocations for PA based on backstop assumptions about tighter controls on federally permitted point sources of pollution. In the final TMDL. See Section 8 of the TMDL for a more detailed discussion. As part of that ongoing oversight EPA affirms its reservation of authority to take additional contingency actions including, but not limited to, those detailed in EPA's 29 December 2009 letter to the Bay states.

20.3 - VIRGINIA

Comment ID 0034-cp.001.001

Author Name: Comment Anonymous

Organization:

I expect Virginia's clean-up plan to assure success, through issuance of a step-by-step plan that prescribes mandates, funding, and deadlines. The draft clean-up plan fails to provide these assurances. In particular, the plan must:

- a) Call for additional pollution reductions from sewage treatment plants on the lower James River basin;
- b) Commit to real mandates and incentives to reduce polluted runoff from farms and cities; and
- c) Define specific two-year actions to achieve actual pollution reductions over the next 15 years to finally heal our rivers and the Bay.

Response

The Watershed Implementation Plans (WIPs) submitted by each State/Commonwealth/District of Columbia (D.C.) are part of the accountability framework outlined in the Chesapeake Bay Protection and Restoration Executive Order 13508. The WIPs help ensure implementation of the Chesapeake Bay Total Maximum Daily Load (TMDL) but are not an approvable part of the TMDL. Because this public comment period is specific to EPA's Chesapeake Bay TMDL, specific comments on each State/Commonwealth/D.C. WIP should be directed to the appropriate State/Commonwealth/D.C. agency for consideration. EPA has forwarded this comment to the appropriate agency for consideration as part of its WIP.

Comment ID 0038.1.001.003

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

As a Virginia resident, I would hope that the state would come up with more stringent/effective measures to curb/reduce Chesapeake Bay pollution from runoff and other sources. I live on a manmade lake in Northern Virginia that drains its overflow water into the Chesapeake Bay, along with all the storm drains in our area. Every year, I have seen algal blooms in the lake that are caused by the myriad fertilizers and other runoff (including avian feces from our local Canada goose flock) that go into the lake from the houses, driveways, and lawns surrounding it. It is humbling to know that these same fertilizers and runoff that cause these blooms go from the lake into the Chesapeake Bay, where they end up mixing with other fertilizers to create eutrophic zones within the Bay that harm water quality and suck dissolved oxygen from the water (killing underwater grasses and aquatic organisms like mussels, oysters, and crabs). When I think that the state's planned allocation for nitrogen and phosphorus for the James River does not meet the target required to declare it healthy, I wonder if the same things that happen on my lake will happen here, too (Summary Virginia WIP Evaluation 9/24/2010, 1). By not creating a clearer, more specific plan for cleaning up the Bay and reducing water pollution (as opposed to only saying that "The state will consider broader incentives and other mechanisms for nutrient management plans"-what does this mean? Considering is not doing), the Bay will continue to suffer thanks to the pollutants brought to it by the James, my lake, and other bodies of water in the watershed (Summary Virginia WIP Evaluation 9/24/2010, 1).

The state also has to create real and clear incentives to begin cleaning pollutants out of Virginia waters. According to the EPA's review of the Virginia Watershed Implementation Plan (WIP), the WIP does not "include legislative and regulatory changes that would support high implementation rates" (Summary Virginia WIP Evaluation 9/24/2010, 1) This means that the state does not provide any ways that would get polluters to begin reducing their pollution at high levels. This means that the state is going to have to spend more money on reducing pollution rather than getting polluters to do the footwork. It would cost less for the state to get dischargers to work proactively to lessen runoff or discharge as opposed to retroactively working to clean up the aftermath. This is a state led by fiscal conservatives-would they not desire to reduce pollution by spending the least amount of state funds?

I would hope that the state of Virginia would take these thoughts into account when redrafting/amending the current Virginia WIP. The Bay is possibly our greatest saltwater resource, and it would be a shame to lose its wealth of aquatic species and the income it brings to countless Virginians because we could not come up with specific and definitive measures to protect it.

Response

See response to Comment No. 0034-cp.001.001.

Comment ID 0038.1.001.004

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

I will begin by stating that after reading the EPA Draft TMDL and the Virginia WIP and listening to Ann Jennings' lecture, I agree that the primary roadblock to achieving the pollution reduction quantities in the TMDL and to implementing the plans mentioned in the WIP is the lack of specifications and actual implementation strategies. Though these documents

purport to give such specifications, they remain extremely vague on how those numbers should be achieved and how those strategies should be put into practice. Without these specifications, these documents leave too much room for error and for wasted time. Though the EPA Draft TMDL is extremely imprecise, I find the WIP's indistinctness to be extremely problematic.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.005

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

The most important thing the EPA needs to consider in the discussion on the Virginia WIP is specific goals and guidelines for reaching those goals. It is not enough just to promise the citizens of Virginia who have legal rights to clean water in both federal statutes and Virginia's own constitution without creating a system in which these goals can actually be reached.

Response

With such specificity, EPA believes we have accountability. This is precisely the improvement that EPA sought, and obtained, with the final state WIP.

Comment ID 0038.1.001.007

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Virginia's plan to reduce pollution relies heavily on an expanded nutrient credit exchange program (WIP p. 5). The issue with this solution is accountability. It seems that if a firm has enough money, they may buy credits from other firms and (as long as they continue to meet the minimum pollution reduction numbers) continue to pollute. There are a few problems with this plan. First of all, if certain firms are polluting heavily, areas of high concentrations of pollution will develop and as they move downstream and into the Bay, they will adversely affect the ecosystem. Also, this cap and trade system does not produce any incentives for firms to further reduce their pollution outputs or to develop intuitive ways to lessen the cost of reducing their pollution.

Response

See response to Comment No. 0034-cp.001.001.

Comment ID 0038.1.001.009

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

It comes down to the fact that the Commonwealth of Virginia needs to take a stronger stance on reducing pollution in the Chesapeake Bay, not only for future generations, but for today's population- those who rely on the Bay and its tributaries for livelihood, recreation, and more.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.011

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Regarding the VA WIP, I find the Interim Load Targets in Section 4 to be insufficient; a goal as important as this cannot be achieved when the allocations are merely described as "2017 load targets".

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.015

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

The Watershed Implementation Plans (WIP) should also be revised by the EPA to be more effective. Instead of making vague references such as "authorities will be considered..."(pg 78) and "the board could mandate..." (pg 89), the EPA should include very specific mandates and goals for companies to fulfill. A WIP that includes these examples in them makes it seem as if it is more of a suggestion than the law that they must obey. The EPA should instead write what WILL happen to achieve less pollution from point and non point sources and also include what authorizes will oversee this and what actions will be done. Laying out a specific groundwork will help the Chesapeake Bay clean up faster.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0038.1.001.016

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

In VA's WIP, the biggest plan the state seems to have for addressing the need for better pollution control is an expansion of its current Nutrient Credit Exchange Program. The state supports such an expansion without evaluating the effectiveness of the current program in actually reducing the pollution it is supposed to be reducing, or discussing issues with accountability and having valid measurements authoritatively tracked through this exchange program. The document's argument for an expansion would be better supported if comments on market limits within trading region and the nutrient being traded were gone over, to prove the systems produces valid results and will do its best in preventing the hot spots that arise under most credit exchanges. The state's new plan is also concerning because its diagram (p.4-5) shows that under the current program only two sectors are buying credits, with four selling, and the new diagram shows now four sectors buying credits, with the addition of on-site systems and agriculture able to not just sell but also buy permits. It seems alarming the state feels agriculture, one of the major contributors to nitrogen/phosphorus pollution, should now be able to buy credits that would allow some farms to not reduce but just buy their way out of the problem. Plus, with the addition of these new sectors into the program, there will be an increased need for monitoring /authoritative oversight, and we don't know whether those same sectors from will even be able to reduce enough to feasibly meet the demand for the increased amount of credits expected to be bought. One of the benefits VA WIP gives for this program (p.6) is that it allows for "the citizens of the Commonwealth to determine the priority for what nutrient reduction actions need to be taken and by when." How this is a benefit seems a bit fuzzy, since the general Commonwealth population is not highly educated on such a specialized issue as the scientific and/or policy background of pollution into the Bay, or the severity of the current situation and effects it is having on their health, certain economic sectors, and their range of recreational activities.

Besides the shortcomings with Virginia's main plan of expanding trade credits, the overall wording and tone of the document lacks a commitment to making productive change. In listing the guiding principles of the WIP (p. 2), a principle given is "credit past progress," meaning dwelling on the past successes in clean-up when considering the need to a large amount of future clean-up; a principle reflecting the rather whining sentiments of the preface that said we cannot forget the \$8 billion of taxpayer's dollars already invested in the effort. Putting this in as a guiding principle shows Virginia's hesitance to accept that more drastic legislation and regulation is necessary and recognize the need to completely focus on future actions. Along the same lines, the Background and Approach paragraphs (p. 3) suggest that cost will be the number one factor in determining which pollution abatement methods are employed, going so far as to imply cost will trump benefit analysis in decision making. Virginia's wariness towards setting out definitive action is expressed through saying the entire WIP contains only "broad" strategies (p. 2), in context a 'loose plan,' the fact it doesn't present any new plan, just tweaking of old regulations with a few minor additions, as indicated by the lack of incremental deadlines, unclear set levels, and "consider revisions" and "explore feasibility" phrases under the source

sector paragraphs. For the James River, which should be of most concern to us Richmond residents, the plan pushes for the river to not have to meet standards set out by the EPA since the river was already placed under chlorophyll restrictions in 2005. Instead the plan thinks considering any sort of regulation for the James should be put completely on hold until a detailed three year study is conducted to determine 'more accurate' scientific readings of the effects of pollution on the James, rather than the measurements provided by the EPA model, and to analyze the economic costs to industry. All of this means a longer delay on clean water, and Virginia putting off its responsibility to the Bay that has provided for it since colonization.

Response

See response to Comment No. 0034-cp.001.001. For the comment on the James River, please refer to response to comment # 0293.1.001.017.

Comment ID 0038.1.001.019

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

One of the major issues that I have with the Virginia WIP is that it focuses heavily on Nutrient Credit Exchange, which will inevitably lead to "hot spots" where pollution is concentrated in one area causing maximum damage. By allowing for hot spots to occur the plan will solve problems in some areas, but could cause even greater damage in others. Another concern is the use of vague language, meant to provide flexibility to industries, which does not establish clear guidelines of when certain things need to be done. For example when discussing the techniques the agriculture industry should implement the goal of 2017 is laid down, but smaller steps before that are absent. These smaller steps would help to ensure that the goal is met on time by everyone, which is ultimately the goal.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.022

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

In the Draft WIP wastewater is a point of focus but shows much reliance on trading programs such as Nutrient Credit Exchange, there is no major focus on creating whole new regulations. New regulations in the VA WIP may be the only solution due to our lack of progress in the past. The WIP lacks a description of how VA will organize to purchase or sell credits for wastewater and agricultural runoff within a set time period. Although the VA WIP shows concern for Agricultural runoff it does not specify any regulations dealing with onsite inspections or audits to verify that farms are

using proper techniques and implemented BMP's. The VA WIP must incorporate specific tactics for farms, allowing each farm to be closely inspected multiple times each year. Since, agricultural runoff has such an impact on the Bay, TMDL's and the VA WIP must specify audits of farmland. The VA WIP and the draft TMDL show room for improvement in regards to the Bay, but we still need to work on the specifics and imply entirely new regulations to see progress.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.023

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

My biggest concern is that the VA WIP has no implementation plans. An effective WIP should contain a plan or sequence of action(s) to achieve a reduction in pollution. The preamble of the VA WIP on p. 2 says the WIP contains plans that provide "board strategies proposed to meet those allocations." It seems to me that the VA WIP is setting itself up for failure by failing to identify specific actions to achieve reduction. The WIP contains many proposals for agriculture, waste water, septic and urban storm water but no method of action. For example page 13 of the VA WIP where agricultural practices are addressed it states "it is the expectation of this plan that these practices will be widely implemented on agricultural lands." The VA WIP expects that its proposals are "widely implemented" but never explains how. I think that if Virginia has been working over the past several decades on improving health of the Chesapeake Bay and has invested billions of dollars water quality it has should care enough to put forth a better WIP that works to carry out its goals. It is time for Virginia to take responsibility, take action, and actually follow through with legislation or mandates to implement its strategies.

In regards to agriculture I think the VA WIP should put more weight on agricultural land management practices in reducing runoff rather than in relying on expanding the nutrient management credit program. One of the plans for agriculture on page 13 of WIP is to "implement nutrient management plans on most crop and hay acres". However, the WIP provides little details of what constitutes nutrient management. I think the WIP should place a much greater emphasis and provide greater detail on this strategy. In my opinion mandating farmers to adopt certain practices to prevent of runoff from their fields seems to be a more straightforward method that will result in immediate pollution reductions that I think the Bay needs.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.028

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Under section 5.1 (current programmes and capacities) it's mentioned that nutrient credits can be traded within the same river basin. However, this does not take into account the relative natural and anthropogenic filtration systems along the river. For example, If a point source pollutes at a high level in the river, after which the river passes through a riparian zone when nitrates are filtered out, the impact upon the river is not so great as if a point source polluted below that riparian zone, as few pollutants would reach the bay in the former scenario. If credits can be exchanged, and the lower course polluter can therefore pollute more this will negatively affect the pollution entering the bay, even if the same amount enters the river.

Under section 5.4 (Strategy to fill gaps) the WIP references discharges by homeowners. In the Northern section of Richmond, the relevant watershed is the Chickohominy River, and a relatively recent study by Dr Don Forsyth into attitudes about the watershed in the area revealed that most homeowners are unaware of the impacts they have on the river, despite considering themselves environmentalists. This particular river segment has high pollution levels that definitely affect the swimmability, yet the section of the WIP is vague as to how it will achieve reductions in single household pollution, and how it will interact with homeowners to achieve reductions.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.036

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Non-point sources such as agriculture (or ones that fall into a strange, grey area between point and non-point sources) need more specified attention in the WIP because of their ambiguous nature and their significant contribution to the state's water pollution.

Another aspect of Virginia's WIP that needs a serious overhaul is the mention of investment in research and development, specifically regarding the harmful, excess nutrients in wastewater, a significant source of pollution. The WIP states that "new technologies and management procedures will need to be explored to address these types of effects from the greater emphasis on removing nutrients from wastewater" (VA WIP, p. 50), however it does not provide any further information about this. As with the aforementioned agricultural pollution and the WIP in general, this discussion needs to be more specific. Perhaps the WIP could designate a specific committee for research and development or set feasible, "technology goals" that must be met by designated time increments. At the very least, the WIP should give more attention to research and development and what part they will play in reducing the water pollution in Virginia.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0038.1.001.037

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

The EPA should most specifically revise issues concerning the TMDL with regards to more stringent point source regulations.

Response

Virginia did not submit a draft WIP that met its TMDL allocation for phosphorous and nitrogen. Because Virginia did not meet the nutrient allocations, nor did Virginia submit a WIP consistent with EPA's April 2010 "Guide for EPA's Evaluation of Phase I Watershed Implementation Plans." EPA was required to assign backstop allocations to Virginia in the draft TMDL so that its allocations would be met. The backstop allocations in the draft TMDL focused on point sources where EPA has federal authority, including NPDES-permitted wastewater treatment plants.

EPA has reconsidered its approach to federal backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final Phase I WIPs and informative public comments on this issue. The final TMDL places much greater emphasis on jurisdictions' final Phase I WIPs and less emphasis on backstops in deriving the loading allocations for all sectors. Please see Section 8 of the final TMDL for the final Phase I WIP evaluations and the backstop allocations for each jurisdiction.

Comment ID 0038.1.001.038

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Although the regulation of non-point sources would be even more important to the commonwealth it is understandable that this type of regulation is even more difficult than point source reduction. Most importantly the state of Virginia in their WIP must at least meet EPA guidelines. Currently the state supports a reduction in Nitrogen levels in the James that is almost 3 million tons higher than what the EPA has mandated.

While not a Virginian I still have a vested interest in the water quality of the James as a tributary to the Chesapeake Bay. I was born and raised in Annapolis Maryland and use the Bay regularly, from being a part of my highschool rowing team, to simple recreation on the water, to a love for Bay shellfish. All of these activities are put in jeopardy by the hazardous conditions of the Bay. As an intern for Anne Arundel County's recreational waters program this summer I

have firsthand knowledge of the terrible quality to the water lately.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0038.1.001.040

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Without a serious reduction in our point source runoff with an effective WIP that categorizes exactly how and when our waters will be repaired we risk losing a major source of joy, economic fulfillment, and most importantly a historic landmark fundamental to the beginnings of this country.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0041-cp.001.003

Author Name: Comment Anonymous

Organization:

Virginia's citizens should ask that Virginia prepare a final WIP that provides a real commitment to fund conservation practices on farms over the next 15 years, specifically programs that are highly incented in the early years and provide flexible ways to deliver funds to all types of farmers, including those that do not accept government funding. A final WIP from Virginia that includes fair and equitable mandates and adequate funding will make EPA action unnecessary.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0050-cp.001.001

Author Name: Simonds Shelly

Organization:

I feel this plan for the Chesapeake Bay lacks concrete milestones to clean up the bay. I also think that there is not enough emphasis on cleaning up the lower James river, which is the source of high levels of pollutants into the Bay.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0055-cp.001.001

Author Name: Bernard David

Organization: Coastal Canoeists

Coastal Canoeists (coastals.org) supports clean water in the Chesapeake Bay and all its tributaries. As members of a recreational canoe and kayak club based in Virginia, the quality of Chesapeake Bay waters is particularly important to us. We also support measures that protect the scenic quality of the waters we paddle and their ability to sustain wildlife.

To that end, we have asked that livestock fencing be a required practice, and that 35 foot forested buffers be established and maintained on all perennial streams, including those later developed. We also support mandating effective Best Management Practices for all farms receiving manure or sludge.

We would like to prohibit new construction on the 100 year floodplain or within 100 feet of a perennial stream or within 25 feet of an intermittent stream. These measures would protect property investment as well as water quality.

Not only is clear clean water more enjoyable to paddle in, it is also more healthy. Paddlers can swim or flip and roll and there have been many cases of infections coming from water contact that could be minimized if the Chesapeake Bay TMDL is actually put in place.

Response

See response to Comment No 0034-cp.001.001.

Comment ID 0087-cp.001.004

Author Name: Phillips D. H.

Organization:

I am very disappointed in Virginia's response to the planning requirement. More delays for redundant studies and hoped for voluntary reductions are not acceptable. Virginia benefits from all of the improvements in water quality to be made by states that are upstream on the Bay. Virginia should be leading the way with aggressive regulations and laws to

implement the TMDL targets.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0107-cp.001.001

Author Name: Bernard David

Organization: Coastal Canoeists

Coastal Canoeists (coastals.org) supports clean water in the Chesapeake Bay and its tributaries. As members of a recreational paddling club in Virginia, the quality of Chesapeake Bay waters is important to us. We also support measures to protect the scenic quality of the waters we paddle and their ability to sustain wildlife.

We ask that livestock fencing be a required practice, and that 35 foot forested buffers be established and maintained on all perennial streams, including those later developed. We support mandating effective Best Management Practices for all farms receiving manure or sludge. Animal feeding operations should be regulated as a point source. Virginia should not delay implementation of needed 2-year milestones in order to "study" expanded nutrient trading or algae in James River.

Prohibit new construction on the 100 year floodplain or within 100 feet of a perennial stream or within 25 feet of an intermittent stream. These measures would protect property investment too.

MS4 programs should be expanded as needed to assure improvements in runoff from developed areas.

Paddlers can swim or flip and roll and there have been many cases of infections coming from water contact that could be minimized if the Chesapeake Bay TMDL is actually put in place.

Strong stormwater regulations on new construction should be implemented immediately. Virginia dropped the ball on this and should implement the regulations as drafted in September 2009 before they were amended to weaken and delay them. New VDOT construction and any improvements that increase impervious areas should have strict stormwater standards.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0110.001.002

Author Name: Siewick C.

Organization:

Virginia should do its part, and participate in cleaning up the bay.

Response

Virginia has submitted a Watershed Implementation Plan in order to meet its allocations under the Chesapeake Bay TMDL. Please refer to Section 8 of the final TMDL for an evaluation of the Virginia plan.

Comment ID 0122.001.002

Author Name: Richey S.

Organization:

With Virginia's proposed WIP, this passing of burdens from generation to generation will only continue to occur. The WIP draft fails to provide step-by-step details on how the program is accurately going to clean up the bay and limit the amount of chemicals in the bay and local rivers and streams. The majority of the draft seems to stress the lack of money available for funding this project. However, what the state fails to understand is that without cleaning up our bays, there will be an even greater economic burden on local businesses and companies that flourish from the bay. Along with this, the state feels that they have made "great" decreases in the pollution levels in the bay, which they claim are not far from the proposed levels the EPA is striving for. If there has been such a BIG decrease in pollution levels, then why is the watershed still green and brown? Instead of focusing on the economic standpoint, the state should want to clean up the bay for the community as a whole. As an undergraduate at the University of Richmond, I know that I deserve the right to swim in the James River without having to worry about getting sick. I also believe the animals that actually live in the water deserve the right to live in an environment free from pollutants.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.004

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The preservation of farm land should be one of the highest priorities of this proposed regulation of our natural resources. In Virginia the amount of farm land has been reduced from 15,572,295 acres in 1950 to 8,753,625 acres in 2007.[FN 1]

[FN 1] National Agricultural Statistics Service, USDA

Response

Agreed. And in addition, when compared to developed land, properly managed farm land is beneficial to preserving local water quality and the Chesapeake Bay.

Comment ID 0126.1.001.005

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

For the benefit of our local communities this plan needs to include an all-inclusive environmental health priority, an environmental safety priority and an abundant food security priority.

Response

See response to Comment No. 0034-cp.001.001.

Comment ID 0126.1.001.011

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

This plan needs to establish a priority of the most effective agricultural BMPs to be installed at the most efficient watershed locations.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.012

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The source of funding to implement agricultural BMPs needs to be established in order to ensure farm preservation and farm economic viability.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.013

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

This plan needs to provide adequate funding for continued management and maintenance of the agricultural BMPs.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.018

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Agricultural BMPs based on the "best available science" need to be sufficiently field tested to assure the reliability of the results.

This plan needs to provide for the development of agricultural BMPs that reduce nutrient loss while preserving farm land.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.021

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

One of the basic principles of soil erosion science states that as the percentage of soil organic matter increases the amount of runoff from rainfall is reduced.[FN 2] Farming practices that increase the percentage of soil organic matter of the soils should be included as an agricultural best management practice.

"Maintaining good soil organic matter levels helps keep topsoil in place. A soil with more organic matter usually has better tilth and less surface crusting. This means that more water is able to infiltrate into the soil instead of running off the field, taking soil with it. When you build up organic matter, you help control erosion by making it easier for rainfall to enter the soil." Source: Sustainable Agriculture Research and Education organization (Reducing Soil Erosion, Chapter 13, sare.org)

The prescribed burning of indigenous grasses would remove a source of soil organic matter and be detrimental to soil organic content as compared to pasture that is not burned.

[FN 2]Buckman, H. and Brady, N., The nature and Properties of Soils, Seventh Edition, 227

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.022

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

This plan needs to provide a cost benefit analysis for the recommendation of pasture livestock exclusion of the streams.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.024

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

This plan needs to assess the effects of the anticipated climate change within this region. The anticipated climate change may be detrimental to agricultural rates of production. Additional farm land acreage may be needed in order to sustain current food production levels. If farm land is converted to forest land, the reversion back to farm land would be costly and cumbersome.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.025

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The proposed unrestrained conversion of farm land to forest and wildlife habitat introduces significant impairments to the health and safety of the communities of the Shenandoah Valley.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.026

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The deer population in Virginia today is estimated to be nearly twice the number of the deer population at the time settlement of Jamestown.[FN 6]

The WIP plan proposes to increase the wildlife habitat regardless of the environmental health impairments to the population that reside in the region. These health impairments would include threats from wildlife diseases such as Lyme disease, West Nile virus and chronic wasting disease. In Virginia the incidence of Lyme disease has increased from 55 in 1993 to 886 in 2008.[FN 7] The incidence of Lyme disease has increased 1500% in Virginia during a 13 year period.

Increasing wildlife habitat for migratory birds would be an environmental health impairment to horses and humans due to the risk of West Nile virus.

Migratory birds are also a factor in the spread of Avian Influenza which is a threat to commercial poultry operations and human health.

Deer/vehicle collisions and wildfire threats from wildlife habitat are additional impairments to the public safety of our communities. In 2009 the two fatalities occurred on public highways within the Shenandoah Valley in which a deer/vehicle collision was a contributing factor to the accident.

BMPs such as grass buffers and filter strips include recommendations to conduct a prescribed burn on regular intervals. Prescribed burning of indigenous grasses introduces an additional safety impairment of uncontrolled wildfires to our communities.

Wildfire risk assessment specific to the Shenandoah Valley should be completed due to the unrestricted conversion of farm land to wildlife habitat.

[FN 6] Virginia Department of Game and Inland Fisheries, Deer Fact Sheet

[FN 7]Centers for Disease Control and Prevention [FN 8]Virginia Department of Environmental Quality

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.028

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Protecting the environmental health, environmental safety and food security of our communities should be a priority of this WIP plan. The preservation of the domestic livestock/grassland ecosystem is the first step in reducing the health risks and safety impairments of the wildlife/forest ecosystem.

This plan needs to be administered by an authority that will include the environmental health, environmental safety and food security of our communities as a priority for the uses of our natural resources.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.029

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The plan relies on an excessive amount of agricultural land retirement to achieve nutrient reduction objectives.

Unlimited Reduction of Farm Land

Implementation of a variety of Best Management Practices (BMPs) will convert a significant amount of existing farm

land to forest land and wildlife habitat. The following is a partial list of farm land conversion to nonfarm uses:

- 1) Retirement of 5% of Agricultural Land (e.g. Conservation Reserve Programs)
- 2) Conversion of 5% of highly erodible agricultural land to forest
- 3) Conversion of farm land to establish riparian forest buffers
- 4) Conversion of farm land to establish riparian grass buffers
- 5) Retirement of farm land attributed to the nutrient trading program

Additional loss of farm land is anticipated due to land being purchased for urban development. Unrestrained conversion of farm land to nonfarm use may be accelerated due to the proposed nutrient trading program.

This plan states that a 35' grass or forest buffer will be implemented on 95% of the waterways in crop and hay lands. Livestock will be excluded from 95% of the perennial waterways. There is no cap or limit of the total amount of farm land that would be converted to nonfarm use. The total amount of farm land conversion to wildlife habitat is unlimited. Financial incentives of nutrient trading may influence landowners to retire an excessive amount of farm land that would result in an impairment of domestic food security. Additional farm land reduction is expected from farms lost to urban development.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.031

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

By the year 2025 a total of 60% of all pasture land will be subject to prescribed grazing practices. The practice of controlled grazing may be very beneficial to the economic sustainability of farm operations as compared to continuous grazing practices.

However the enforcement of minimum pasture heights during adverse weather conditions would require livestock to be removed from pasture areas. If cattle would need to be removed from a specific grazing area this would be create an economic adversity to the livestock producer. This would in effect regulate the number of days on pasture in a growing season. If additional pasture is not available, livestock would need to be placed in a confined feeding operation or liquidated.

The typical 180 day grazing season in Rockingham County, Virginia has been cut in half this year due to drought conditions according to the extension service as reported by Daily News Record on October 23, 2010.

The recommended standards for prescribed grazing need to ensure that livestock producers can maintain economic viability.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.032

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Unlimited conversion of farm land to wildlife habitat would threaten economic sustainability of the agribusiness infrastructure of this region. Proposed conversions of farm land have the potential to significantly alter the land base and as a result adversely impact the most important economic sector of the rural community.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.033

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The WIP is much broader than just a water quality plan in that it sets the land management standards for the watershed. In that these are coupled so closely, it is imperative that as part of the consideration the resultant socio/economic impacts are factored into the proposed changes that will be the result of a WIP. This all comes as a cost. While grants and other types of funds are spoken of as to be used for implementation, there are only a finite amount of dollars and they will be coming from some other source.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0126.1.001.034

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The preservation of the domestic livestock/grassland ecosystem is a vital component of protecting the health and safety of our communities of the Shenandoah Valley.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0183-cp.001.001

Author Name: Owens James

Organization: Harvey Lindsay Commercial Real Estate

o The pollutant allocations in the WIP for the urban/suburban and all other sectors should be returned to the levels recommended by the Secretary's Stakeholders Advisory Group (SAG). The revised WIP should restore equity to the allocations as recommended by the SAG which already require significant reductions for all sectors except Wastewater Treatment Plants (WTPs).

Response

See response to Comment No. 0034-cp.001.001.

Comment ID 0183-cp.001.003

Author Name: Owens James

Organization: Harvey Lindsay Commercial Real Estate

o The Virginia WIP submitted to EPA in September fails to take into account cost-effectiveness. Urge Virginia to use available data to take it into account in their revised WIP. The draft WIP unfairly shifts additional burdens onto the urban/suburban, on-site septic and agriculture sectors while reducing the contribution from WTPs to virtually no increase going forward.

Response

See response to Comment No. 0034-cp.001.001.

Comment ID 0185.1.001.019

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Virginia

Overall

Overall Virginia expresses great resistance, if not outright hostility, to the Bay TMDL. Throughout the development of the Bay TMDL, Governor McDonnell has repeated his concerns about the cost, legality, allocations, and timeline for action. This attitude is reflected in the draft WIP. The WIP relies heavily on an expanded nutrient trading program to achieve its pollutant reductions under the Bay TMDL, but the plan fails to specify what laws, regulations, funding, and other resources are needed to ensure that the trading program is functional and effective and results in actual pollutant reductions rather than simply paper trades.

The draft WIP would lower sediment pollution to a level that is 12 percent below the target allocation. However, it still permits nitrogen and phosphorous allocations discharges to be 6 percent and 7 percent, respectively, more than the level allowed by the target allocation.

For transparency of information, the draft WIP does not disclose much of the crucial information. For strength of its programs, relying on an expanded trading program fails to inspire confidence that pollutant allocations will in fact be met. In its final WIP, Virginia should provide more details regarding how its nitrogen and phosphorus allocations will be met by all sectors through the trading program. Water quality trading raises serious concerns about creating hotspots of pollutants and establishing accountability to ensure that trades result in actual pollutant discharge reductions rather than paper trades. The Virginia Department of Environmental Quality should provide legislative guidance to enable the Virginia General Assembly to expand the state trading program, including appropriate geographic and temporal limitations and the establishment of baselines for the trading program. Virginia should also detail back-up pollutant control measures that will also achieve the Bay TMDL in case the nutrient trading program is not expanded to include all sources of nitrogen, phosphorus, and sediment.

NPDES Permitting

In the draft WIP, Virginia includes some information regarding the number of wastewater facilities and stormwater dischargers but fails to provide a snapshot of the universe of all NPDES-regulated facilities and the number of which have up-to-date NPDES permits. Virginia also failed to establish deadlines, timelines, or qualitative goals for updating and reissuing expired and administratively continued NPDES permits. The draft WIP does not address gaps, if any, in personnel levels and how the gaps might be filled.

Enforcement of NPDES Permits

Virginia's draft WIP does not provide any internal assessment of the effectiveness of its program, nor does it provide sufficient information to judge the strength of its enforcement program. The final WIP should include: the number of physical, on-site inspections conducted per sector; the number of violations and penalty actions or the total amount of penalties assessed; information on major facilities that are in significant non-compliance; and the level of enforcement resources.

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

The Virginia WIP does not discuss inspection rates or the existing or needed resources to regularly monitor implementation of best management practices. This information is crucial to providing the necessary reasonable assurances that nonpoint sources will achieve their allocation of pollutant reductions. Moreover, Virginia intends to include nonpoint sources in an expanded trading program, which highlights the importance monitoring and verifying implementation of voluntary practices in order to accurately get credit for those practices. In the final WIP, Virginia must include this information.

Contingencies

The draft WIP speaks only in generalities about what contingencies would be implemented if primary pollutant controls fail to produce the necessary reductions. For Virginia, a thorough discussion of contingencies is particularly important because the state plans to expand its nutrient trading program for pollutant reductions. If the nutrient trading does not work or causes significant delays, Virginia will need to implement its contingencies.

In the final WIP, Virginia should ensure that its contingencies are clearly identified. They must be coordinated with specific failures, have timely implementation deadlines, be effective, and legal authority must exist for their implementation.

Concentrated Animal Feeding Operations

According to the draft WIP, Virginia's new CAFO regulations became effective on March 3, 2010, and the Virginia Department of Environmental Quality is "in the process" of modifying the CAFO permit program. The final WIP should provide a final or at least estimated date of when all CAFO permits will be in compliance with both the new regulations and the Bay TMDL. The draft WIP also fails to disclose gaps related to funding and personnel needed to establish and maintain an effective CAFO NPDES permitting program.

Stormwater

Virginia's stormwater section fails to include much of the basic information needed to evaluate its stormwater programs. The section does not include permitting information or the scope of authority and enforcement activities conducted by local governments with delegated authority. The section fails to disclose information about available and needed resources and how the state will obtain these resources.

Air Deposition

Virginia's draft WIP generally does not include a discussion of controlling sources of air deposition of nitrogen in the state, with the exception of the James River Basin. There, the draft WIP simply acknowledges the need to reduce atmospheric deposition of nitrogen without specifying how it will be achieved. The final WIP should include a list of Virginia's state air authorities and specific details on how these authorities will be applied to achieve the nitrogen allocations. These details must include the level of enforcement, personnel, and financial resources dedicated to the state's air program, the gaps in these resources, and how and when the gaps may be filled.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0198.1.001.007

Author Name: Covington Roy

Organization: Chesterfield County, Virginia

Virginia, however, has determined in its WIP (September 2010) at pages 14-15 that the chlorophyll standard is faulty and that "additional scientific study is needed to provide a more precise and scientifically defensible basis for setting final nutrient allocations." We agree with this finding and determination by Virginia, and we also support Virginia's "Four Part James River Strategy" at pages 15-17 of the WIP to address these major technical problems. We strongly support the WIP with regard to its wastewater elements at pages 11- 12 (Source Sector Strategy for Wastewater), at pages 14-17 (James River), and pages 38-50 (Section 5: Wastewater).

Response

See response to Comment No. 0293.1.001.017

Comment ID 0199.1.001.007

Author Name: Frederick Thomas

Organization: Rivanna Water & Sewer Authority

We strongly support the WIP with regard to its wastewater elements at pages 11-12 (Source Sector Strategy for Wastewater), at pages 14-17 (James River), and pages 38-50 (Section 5: Wastewater).

Response

See response to Comment No. 0293.1.001.017

Comment ID 0210.1.001.002

Author Name: Tolbert J.R.

Organization: Virginia Chapter-Sierra Club

The TMDL is supposed to be a partnership between the states and federal government. An element of this partnership

is the responsibility of each of the Bay jurisdictions to develop a Watershed Implementation Plan. These plans are supposed to be a roadmap to clean water, outlining the steps that the state will take to have in place all cleanup activities by 2025. Unfortunately, Virginia's draft Watershed Implementation Plan is not a roadmap. Instead, the state has submitted a document that outlines where we are at in our cleanup efforts and where we want to go, but no direction on how to get there.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0210.1.001.005

Author Name: Tolbert J.R.

Organization: Virginia Chapter-Sierra Club

Now, with the leadership of the Obama administration's Environmental Protection Agency we have the opportunity to correct course on bay cleanup, but Governor Bob McDonnell and his allies in the agriculture and development business sectors are calling for more of the same failed policies that created the problems facing the bay.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0210.1.001.009

Author Name: Tolbert J.R.

Organization: Virginia Chapter-Sierra Club

To begin, it is important to note that we believe in the need for a plan that is crafted by Virginia in order to have confidence that the plan will be successfully carried out. Unfortunately, we cannot turn a blind eye to the fact that the Virginia plan is far too weak to be a stand-alone document. Specifically, we have identified deficiencies in each of the pollution sectors that we believe need to be addressed.

Two-year Benchmarks

It is disconcerting that Virginia has chosen to view the draft WIP in the totality of the next 15 years rather than the two-year benchmarks that have been agreed upon by the partner states within the watershed, the District of Columbia and the federal government. These two-year milestones provide a mechanism for Virginia to review its progress on meeting the pollution reduction targets. Virginia needs to use this tool to provide transparency and a system of checks on our progress.

Nutrient Credit Trading Program

The foremost glaring concern when reading the Virginia WIP is the Commonwealth's over reliance on an expansion of the nutrient credit trading program. From our analysis of the state's strategy it would appear that the state believes massive pollution reductions can be made through this program, however, there are multiple problems with this strategy which the state has not addressed.

The state has not identified a legislative proposal for what form the expanded nutrient credit program should take on. We feel that the current proposal to conduct a study on the feasibility of expanding the existing program, paired with no criteria of what that expanded program will look like is a recipe for delay and inaction. It is up to the McDonnell administration and the state regulatory agencies to provide detailed recommendations and guidance what Virginia's expanded trading regime will look like. This guidance is currently lacking in the WIP.

Nutrient trading should not be expanded. Developing a program to do so will delay the implementation of proven methods to cut pollution. An expanded nutrient trading program would be confusing to polluters and expensive and cumbersome to administer. Local officials already complain of confusion in regulations, and cutbacks in staffing at Virginia's natural resources agencies make it unlikely that useful rules can be developed, reviewed, and implemented efficiently.

As currently described, there are no regulatory drivers to ensure that pollution credits will be purchased from the various sectors. Furthermore, there is no timeline for when we can expect to see this program take effect and on what schedule different sectors will begin to participate.

As with many other areas within the WIP, this section lacks specificity. We do not know to what level different sectors and communities will be expected to participate in the program, nor how they will go about participating.

James River Strategy

The Virginia Chapter-Sierra Club begins with the premise that all of Virginia's rivers, lakes and streams should be clean and safe for the plants and species that call it home, and for the citizens who rely on them for drinking water and recreation. The Virginia WIP, and the McDonnell Administration, has asserted that the James River could become too clean. This is an affront to the principle of people deserving access to clean water, and could be considered a violation of Article XI of the Virginia Constitution.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0210.1.001.011

Author Name: Tolbert J.R.

Organization: Virginia Chapter-Sierra Club

We propose that the Virginia WIP be amended to include the following action:

Requiring wastewater treatment plants to reduce their total nitrogen and total phosphorus loads to 4 mg/L and .3 mg/L respectively.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0210.1.001.012

Author Name: Tolbert J.R.

Organization: Virginia Chapter-Sierra Club

The initial reaction when reading the Watershed Implementation Plan is that Virginia has shown a real commitment to reducing pollution from the agriculture sector in the draft strategy. Upon further review, several problems become apparent with the draft strategy.

- Voluntary Nature of the Best Management Practices (BMP) Program - The draft Virginia WIP relies largely on the voluntary implementation of agricultural best management practices with little increase in the transparency or auditing of their implementation. Based upon the Commonwealth's own arguments this is a flawed approach. The administration has claimed that not all BMPs are given credit, yet there is no proposal to ensure better tracking of implementation.

- Funding for Agriculture BMPs - The draft strategy assumes tens of millions of additional funding for BMP cost-share programs, but makes no proposals on how to provide increased funding. It is incumbent on Virginia to provide a strategy for meeting the funding required through the ramp-up period. As evidenced by the funding cuts to cost-share programs in the 2010 General Assembly session, it is our recommendation that this funding should come from a dedicated source.

Handling Manure Loads - The state should be commended for referencing the potential for a poultry litter to energy project. We would encourage the state to establish a pilot program with James Madison University or another public educational institution to develop this technology and turn what is currently a financial drain on Virginia's farmers into an economic engine and coup for clean water.

In addition to the recommendations made above the Virginia Chapter believes the following steps should be taken to reduce nutrient loads from the agriculture sector:

- Require that all cows and other livestock are fenced out of Virginia's streams by 2017. No new unfenced pastures should be allowed to go forward beginning January 1, 2011.

- Prohibit additions of manure, phosphorus-containing fertilizer, or sludge to soils with phosphorus saturation greater than 20 percent, or to soils that are highly erodible or otherwise hydrologically unsuitable for land application.

- Nutrient management and soil conservation plans should be in place on all farms over 500 acres by 2014; and on all

farms over 250 acres by 2017; and on all farms over 50 acres by 2020; and on all commercial farms by 2025. The Commonwealth should develop and establish a nutrient analysis and fertilizer application education and certification program that should apply to all purchasers of more than 50 pounds of fertilizer.

- All perennial streams should have established at least a 35 foot forested or appropriate vegetative buffer. Farming practices that overwhelm this buffer with sediment or nutrients, so that it can not function as an ecosystem, should be prohibited. This should be a priority use of federal and state conservation funds. These buffers should be on all lands including those later developed.

Stormwater

While Virginia has made significant progress in reducing pollution from agriculture and wastewater facilities the same cannot be said for stormwater. Recent reports show that efforts to clean the Chesapeake Bay and its tributaries are losing ground specifically because increased stormwater pollution is offsetting progress being made from point sources, agriculture and other sources.[FN1]

Unfortunately, the Virginia WIP assumes that stormwater reductions will meet the E3 standard (Everything, Everywhere by Everyone) which is simply not possible without significant improvement to Virginia's plan. We believe that the Virginia allocation cannot be met without strengthening the proposed stormwater regulations and adopting them immediately on January 1, 2011.

In addition to the recommendations made above the Virginia Chapter-Sierra Club believes that the following steps should be taken to reduce nutrient loads from stormwater:

- Prohibit new construction in 100 year floodplains or within 100 feet of a perennial stream, or within 25 feet of an intermittent stream.
- Virginia should implement the Department of Conservation and Recreation stormwater program as it stood September 2009, before various changes were made to weaken and delay the program.
- Require that all MS4 and other stormwater permits incorporate the local wasteload allocations as defined in the TMDL.

Wastewater

Virginia has seen significant load reductions from improvements to wastewater treatment plants throughout the Chesapeake Bay watershed. The state should be commended for its progress in this area. It is our belief that this area represents a model for the other sectors since water quality improvement in this area can be traced directly to the mandate that load reductions be achieved from wastewater treatment plants.

Unfortunately, the Virginia WIP does not do enough to capitalize on this proven pollution reduction method. As stated earlier, we believe that Virginia should retrofit treatment plants in the James River Basin to the levels of 4 mg/L total nitrogen and .3 mg/L total phosphorus.

Furthermore, there is concern over the pump-out requirement for onsite septic systems. The plan lacks clarity on how 100% pump-outs will be achieved. We would recommend that the Commonwealth include a plan for accounting for total pump-outs. Specifically, we believe that homeowners should mail back a certificate provided by the contractor to the local municipality so that local governments can track those homes which have met this requirement and those that have not. In addition to the recommendations made above the Virginia Chapter-Sierra Club believes that the following action should be taken to reduce nutrient loads from wastewater and onsite septic systems:

- Ensure adequate ongoing funding to Virginia's Water Quality Improvement Fund to continue the ability of wastewater treatment plants to install best available control technology. Virginia must close the gap for smaller point source dischargers, specifically on wastewater treatment plants (less than 500,000 gallons per day capacity).

[FN1] <http://www.vcnva.org/anx/ass/library/35/stormwaterfacts.pdf>

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0213.1.001.002

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

HRWTF Supports Virginia's WIP: The Commonwealth of Virginia's Watershed Implementation Plan provides a reasonable and cost effective approach to meeting the goals of the Chesapeake Bay and in particular the James River. It provides sustainability and stability for communities like Hopewell through its systemic approach and development of expanded trading programs. EPA's TMDL is not required to consider cost in development of its TMDL, however, before the TMDL can be achieved, costs must be considered in the implementation process. HRWTF believes that Virginia's WIP provides that cost consideration and EPA has no right to disapprove this plan.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0213.1.001.008

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

Disapproval of Virginia's WIP and Proposed Backstop Allocations Affect Trading:

Virginia's WIP proposed the expansion of the nutrient trading program to include point and nonpoint trading scenarios. This would greatly enhance opportunities to creatively meet the Bay tributary allocations in as quick and cost effective manner as possible. However, disapproval of Virginia's WIP discourages the State from developing the legislation and regulation necessary to make this happen.

Imposition of the proposed backstop allocations are an impediment to trading by reducing POTW allocations available for trading. POTWs can no longer exceed limitations and credits to sell when they are being forced to treat to the limit of technology.

The second phase of HRWTF's two phase plan, which is estimated to cost \$35 million would reduce total nitrogen by 3 mg/l and would still require the purchase of nitrogen credits to meet the current nitrogen allocation. If the current draft of the TMDL is adopted, there will be little if any credits available and certainly not enough credits to meet HRWTF's needs at the proposed backstop allocation.

Response

See response to Comment No. 0435.1.001.009.

Comment ID 0214.1.001.001

Author Name: Cuffee-Glenn Selena

Organization: City of Suffolk, Virginia

The City of Suffolk's MS4 operates under a general Phase II MS4 permit issued by the Virginia Department of Conservation and Recreation. As a small locality in the Tidewater Region of Virginia, we have concerns with the proposed implementation of EPA's "Pollution Diet" and the possible impacts to our community. While we understand and agree that the health of the Chesapeake Bay should be of concern to everyone, and must be addressed, we are concerned with many of the approaches proposed by the EPA. We are apprehensive with regard to the tools being used to both determine the load allocations, and to monitor the diet. We all know most diets prove unsuccessful because they are impossible to stick with; either the diet is too onerous or the results do not come quickly enough. Like the EPA, we are committed to a successful diet. However, in order to be successful, we respectfully request that the criteria to meet the milestones be obtainable for a small community like Suffolk, and affordable for our citizens. Additionally, the schedule established should be realistic in allowing time for the desired results.

Response

See response to Comment 0067.1.001.009

Comment ID 0215.1.001.007

Author Name: Milo J.

Organization: Maury Service Authority (MSA)

Virginia, however, has determined in its WIP (September 2010) at pages 14-15 that the chlorophyll standard is faulty and that "additional scientific study is needed to provide a more precise and scientifically defensible basis for setting final nutrient allocations." We agree with this finding and determination by Virginia, and we also support Virginia's "Four Part James River Strategy" at pages 15-17 of the WIP to address these major technical problems. We strongly support the WIP with regard to its wastewater elements at pages 11-12 (Source Sector Strategy for Wastewater), at pages 14-17 (James River), and pages 38-50 (Section 5: Wastewater).

Response

See response to Comment No. 0293.1.001.017

Comment ID 0220-cp.001.001

Author Name: Emory B.

Organization: billememory.com

I have attached the letter I wrote to Virginia's Governor, Bob McDonnell, giving him feedback on Virginia's draft WIP.

Response

No response required.

Comment ID 0220.1.001.001

Author Name: Emory B.

Organization: billememory.com

I grew up on the south side of the James River between Boshers's Dam and William's Dam. When I was a child, the James was a mess, abused by Richmond, ignored by the Federal Government (this was a long time ago, before the Federal water pollution efforts of the 1970's). There were signs posted on the Southside advising citizens to stay out of the water for health reasons.

Look at Richmond now! The city boasts a nationally recognized river parks system. Environmental improvement has fostered economic development.

I have been following the Chesapeake Bay draft TMDL process with interest. I wanted to provide you with some citizen feedback regarding Virginia's response, the draft Watershed Implementation Plan (WIP).

I attended two of the public education sessions the EPA, the VA DEQ and the VA DCR held in October. From these I gather that Virginians support fishable and swimmable waters. Additionally, Virginians realize that arriving at that condition will not be easy.

The EPA has come up with a list of what they call "Federal backstops" to put into place if Virginia's WIP does not provide assurance that the nutrient loadings specified in the Chesapeake Bay TMDL are attained.

This Federal intervention will not be necessary with the exercise of your strong leadership before the upcoming General Assembly and your involvement with the final editing of Virginia's WIP.

I live in a region that has done little to help with the health of Virginia's waters. In Thomas Jefferson Planning District Commission legislative packet, in years past we have urged the General Assembly not to consider extending the "Bay Act" here!

Make the extension of the Bay Act your first legislative priority and so state in the WIP. Turn your gaze to non-Tidewater communities located in the Chesapeake Bay watershed, the 104 units of local government cited in the HJR 622 study (November, 2001). Welcome them to the honor and responsibility of being in the Bay watershed, extend the geographic reach of the Chesapeake Bay Preservation Act.

Create a State program that tracks and rewards farmers when they install best management practices on their farms. The external cost of dumping tons of nutrients into the waters of Virginia must be dealt with. It is not good business to destroy Virginia's aquaculture and Virginia's riverine recreational and tourism resources.

Encourage localities to implement storm-water utility fees based on permeability.

Please consider leading our localities and citizens. Make it clear to the people in the Bay watershed why you are asking them, in these difficult economic times, to step up.

At the education sessions I heard reference to many citizen ideas that came out of the "SAG" process (stakeholders advisory group meetings?) The commenter lamented that these proposals had not been included in the WIP. Where are those proposals? Promote specific actions in the WIP.

The economic impact of Federal backstops on citizens will be intense. But, with your leadership, the backstops can be avoided.

Ask Virginians to sacrifice. Direct the DCR to write a Watershed Implementation Plan that will get Virginia into the EPA's end-zone of "reasonable assurance".

We are about the same age. I know you remember Nixon going to China. President Nixon, flaws aside, was a pretty amazing President. Mr. Nixon started the EPA as well.

Please consider being the Governor of the Commonwealth of Virginia, the leader who makes plain the way for the other states and DC to reach this attainable goal of an actionable "pollution diet" for the Chesapeake Bay.

As called for in Virginia Code before you and I were born:

Virginia's 1950 State Water Control Law.

62.1-44.2. Short title; purpose.

The short title of this chapter is the State Water Control Law. It is the policy of the Commonwealth of Virginia and the purpose of this law to: (1) protect existing high quality state waters and restore all other state waters to such condition of quality that any such waters will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them; (2) safeguard the clean waters of the Commonwealth from pollution; (3) prevent any increase in pollution; (4) reduce existing pollution; (5) promote and encourage the reclamation and reuse of wastewater in a manner protective of the environment and public health; and (6) promote water resource conservation, management and distribution, and encourage water consumption reduction in order to provide for the health, safety, and welfare of the present and future citizens of the Commonwealth.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0226.1.001.006

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

In the interim, we are proponents of technology based alternatives employed under the principles of MEP (Maximum Extent Practicable) and adaptive management to demonstrate compliance with what we believe to be solid Clean Water Act principles. We appreciate and support Virginia's inclusion of an expanded trading program as a local implementation option. Virginia has a nationally recognized point-point trading program that currently includes domestic and industrial wastewater treatment plants. We believe that expansion of Virginia's trading program is one way to provide flexibility to help make attainment more feasible.

Response

EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0228.1.001.002

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

I am optimistic that, with modification, the draft WIP proposed by the Commonwealth could easily become the most cost-effective and equitable solution to the TMDL problem that is acceptable to the EPA. This WIP would benefit the citizens of the Commonwealth by cleaning the Bay and local rivers and streams in the most affordable way possible.

Response

It is EPA's preference that the jurisdiction WIPs are used to meet the allocations. However, the WIPs need to meet the expectations outlined in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction and meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. Where WIPs do not meet these criteria, backstop allocations may need to be applied. EPA's evaluation of the final WIP for each jurisdiction can be found in Section 8 of the final TMDL report. Also please see response to comment # 0431.1.001.004.

Comment ID 0228.1.001.003

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The following seven Action Items (and associated Sector Allocations outlined in Exhibit 1) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] can improve the draft WIP and achieve the TMDL allocations for Virginia at a lower total cost to society as summarized in Table 1, below (See Section III., Table 6, for calculations and data sources):

1. Upgrade All Significant Discharger Wastewater Treatment Plants
2. Establish Urban Fertilizer Regulations
3. Expand 5-Year On-Site Pump Out Requirement
4. Improve Erosion and Sediment Control Training and Specifications
5. Establish a "Nutrient Trading Fund"
6. Allow New Construction with On-Site Sewage Disposal to Exceed NSF/ANSI Standards or Contribute to the Nutrient Trading Fund
7. Allow Development Exceeding the Allowable WIP Loads to Contribute to the Nutrient Trading Fund

Table 1: Urban Sector Cost Comparison of Draft WIP, EPA Backstop, and Proposed WIP Modification.

[Please see page 2 of the original letter (Docket ID 0228.1.001.003).] [FN1] [FN2]

[FN 1] Over 15 years

[FN 2] Derived from US EPA, 2009. The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay, A Draft Report Fulfilling Section 202a of Executive Order 13508 (Page 23). U.S. Environmental Protection Agency, Chesapeake Bay Program Office, Annapolis, MD. (Page 23.)

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0228.1.001.009

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The arguments against further upgrades to WWTPs include:

- a) "They" have already spent a lot of money to upgrade their plants and it is unfair to ask for more; and
- b) "They" have already done more than their fair share of load reductions since 1985.

However, Pogo [FN14] once said, "we have met the enemy and he is us," and that wisdom applies in this case as well. The arguments above are inappropriate because, again, "they" are not WWTP operators; "they" are rate payers, the urban/suburban dwellers who ultimately pay for these plants, but who also pay for urban stormwater upgrades through fees or taxes. The WIP needs to compare the cost-effectiveness of upgrading WWTPs [FN15] to other options faced by the same people: the rate payers, not the WWTP operators.

[FN 14] Walter Kelly, Earth Day Poster, 1970.

[FN 15] To concentrations of TN = 3.0 mg/L and TP = 0.10 mg/L from today's levels (since costs increase dramatically as treatment levels tighten).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0228.1.001.011

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The SAG voiced support for implementing Urban Nutrient Management, which proposes to reduce the pollutants running off urban surfaces by regulating how those nutrients may be applied to urban surfaces in the first place. (See Exhibit 5, Effects of Fertilizer Management Practices on Urban Runoff Water Quality [FN17]. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1]) Governor McDonnell has also voiced his support for urban nutrient management, noting that he was the patron of legislation to ban phosphorus in detergents in the Commonwealth as an incredibly cost-effective nutrient management strategy. However, the draft WIP only noted that urban nutrient management regulations would be "considered" and "investigated."

As shown in Charts 1 and 2, below, the potential reductions achievable through urban nutrient management are significant; proper implementation of nutrient management has the potential to save at least 125,000 lb/year TP and 465,000 lb/yr TN at an insignificant cost (less than \$10/year [FN18] for a quarter-acre lot). In fact, in some markets, this could be a no-cost reduction [FN19].

[FN 17] 17 Daniels, W., Goatley, M., Maguire, R., Sample, D., 2010. Effects of Fertilizer Management Practices on Urban Runoff Water Quality. Virginia Polytechnic Institute and State University and Occoquan Watershed Monitoring Lab.

[FN 18] Based on conversations with industry experts and cost comparisons at retail stores in July, 2010. Assuming the approximate cost of straight urea fertilizer is \$0.80/pound applied and poly- or sulfur-coated urea fertilizer is \$2.30 to \$2.70/pound applied (an expensive Slow Release Nitrogen Source), with 1 lb/slow release Nitrogen per 1000 sf/year used and no extra cost for including Phosphorus in the fertilizer.

[FN 19] A comparison of Fairway Formula GreenView fertilizer at Merrifield Garden Center in Gainesville, Virginia, on 11/2/ 2010, showed three formulas (29-2-10 Fall fertilizer; 30-0-12 Fall fertilizer with 3/5ths SRN; and 31-0-0 Late Fall fertilizer with 9/10ths SRN) each priced at \$39.99 for an amount covering 5,000 square feet.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0228.1.001.015

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The discussion below presents specific modifications to the Draft WIP that achieve the EPA load allocation goals in a more cost-effective manner than that Draft WIP proposal (a summary of the proposed load allocations and the actions required to achieve the allocations for the Proposed WIP Modification is presented in Exhibit 1) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] . Table 7 provides a cost analysis comparison for the Draft WIP, EPA backstop, and the Proposed WIP Modification.

Table 7: Urban Sector Cost Comparison of Draft WIP, EPA backstop, and Proposed WIP Modification [Please see page 15 of the original letter (Docket ID 0228.1.001.015).] [FN28-35]

The analysis in Table 7, above, shows that the most cost-effective plan for the Commonwealth, in terms of both the total cost and the per-capita cost, is the Proposed WIP Modification presented in Exhibit 1. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1]

In addition to providing the lowest cost for tax- and rate-payers in the Commonwealth, the Proposed WIP Modification also provides for a high level of reasonable assurance as described in the sections below.

[FN 28] Includes Wastewater, On-site and Urban sectors.

[FN 29] See Exhibit 2 for sector cost estimates. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1]

[FN 30] 6,001,681 people in the Chesapeake Bay portion of Virginia. Calculated from 2009 US Census estimate (<http://www.census.gov>; last accessed 7/6/2010), using Chesapeake Bay Watershed boundary GIS information (<ftp://chesapeakebay.net>) and the ESRI Virginia County dataset. Where only a portion of a county falls within the watershed, the county population in the watershed is determined by calculating the population of the county (based on the 2009 US Census estimate) times the percent of the county area within the Chesapeake Bay Watershed.

[FN 31] The proposed WIP modification requires reductions from the Urban sector of 161,194 lb/yr TP and 760,018 lb/yr TN below 2009 levels (see Exhibit 1) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] . Urban nutrient management regulations have the potential to reduce loads by 124,863 lb/yr TP and 466,287 lb/yr TN, leaving 36,331 lb/yr TP and 293,731 lb/yr TN to be removed by retrofits. At an estimated cost of \$33,500 \$/lb/yr TP and \$6,000 \$/lb/yr TN, the total cost to perform urban retrofits is $[36,631 \times \$33,500 \text{ (TP)}] + [293,731 \times \$6,000 \text{ (TN)}] = \$3.0 \text{ Billion}$.

[FN 32] EPA, in their 2009 report titled, "The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay," estimates the cost of "...retrofits in existing MS4s at about \$7.9 billion per year." This equates \$462/capita/yr, which is comparable to the Draft WIP and indicates that the high cost of urban retrofits has been anticipated by EPA for some time.

[FN 33] US EPA, 2009. The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay, A Draft Report Fulfilling Section 202a of Executive Order 13508 (Page 23). U.S. Environmental Protection Agency, Chesapeake Bay Program Office, Annapolis, MD. (Page 23.)

[FN 34] Total Urban sector cost was calculated by multiplying the yearly per-capita cost by the 2009 U.S. Census estimate (<http://www.census.gov>; last accessed 7/6/2010) population for Virginia within the Bay watershed (6,001,681). The resulting value was then multiplied by 15 years to achieve the total sector cost. Calculations based on 2009 US Census estimate (<http://www.census.gov>; last accessed 7/6/2010), using Chesapeake Bay Watershed boundary GIS information (<ftp://chesapeakebay.net>) and the ESRI Virginia County dataset. Where only a portion of a county falls within the watershed, the county population in the watershed is determined by calculating the population of the county (based on the 2009 US Census estimate) times the percent of the county area within the Chesapeake Bay Watershed.

[FN 35] Annual per-capita cost was calculated by dividing 7.9 Billion by the Bay-wide watershed population of 17,102,170 (2009 U.S. Census estimate; <http://www.census.gov>; last accessed 7/6/2010). Calculations based on 2009 US Census estimate (<http://www.census.gov>; last accessed 7/6/2010), using Chesapeake Bay Watershed boundary GIS information (<ftp://chesapeakebay.net>) and the ESRI County dataset. Where only a portion of a county falls within the watershed, the county population in the watershed is determined by calculating the population of the county (based on the 2009 US Census estimate) times the percent of the county area within the Chesapeake Bay Watershed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0228.1.001.017

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

A. Action Items Required to Achieve the Proposed WIP Modification

1. Upgrade All Significant Discharger Wastewater Treatment Plants

As previously stated, WWTP upgrades are the most cost-effective method of removing nutrients on a cost-per-pound basis (compared with nutrient removal options in other sectors) and provide a very high level of reasonable assurance.

This makes upgrading significant discharger wastewater treatment plants to a proposed Tier 4 [FN36] level of treatment (Limits of Technology; TN = 3 mg/l; TP = 0.10 mg/l) a very practical option for the Commonwealth. In addition, an implementation schedule should be established under the next applicable General Permit to allow the necessary plant upgrades to be sequenced over the next 15 years [FN37] so that, by 2025, every WWTP upgrade has been completed or funded with construction commenced without running into permit compliance issues.

[FN 36] As defined by the Chesapeake Bay Program, "Nutrient Reduction Technology Cost Estimations for Point Sources in the Chesapeake Bay Watershed," November 2002.

[FN 37] Rather than the immediate 5-year life of the current General Permit.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0228.1.001.020

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

4. Improve Erosion and Sediment Control Training and Specifications

Training and minor specification improvements can more than double the effectiveness of current regulations. This could be facilitated by forming an advisory group to determine the cumulative benefit of minor improvements to training requirements and specifications contained in Virginia's Erosion and Sediment (E&S) Control program. The TMDL model documentation estimates that E&S controls have 40% removal efficiency [FN40]; however, the report titled, "Performance of Current Sediment Control Measures in Maryland" by the Metropolitan Washington Council of Governments and the Occoquan Watershed Monitoring Laboratory (MWCOC Report) indicates that, with proper installation and maintenance, E&S controls can provide over 90% efficiency [FN41], as shown in Chart 6, below:

Chart 6. Effect of Erosion and Sediment Control Measures on Suspended Sediment Concentrations [Please see page 18 of the original letter (Docket ID 0228.1.001.020).]

Minor changes which should be examined by the advisory group include:

a) Updating the requirements for Responsible Land Disturbance.

The advisory group should consider requiring Responsible Land Disturbance (RLDs) to first pass Virginia Department of Conservation and Recreation's (DCR's) Basic Erosion and Sediment Control class [FN42] (discussed below) or be a Professional Engineer (which is currently an option). Anecdotal evidence suggests that E&S controls could achieve much higher efficiencies if installed, inspected, and maintained properly. Therefore, it is critical that most, if not all, land-disturbing professionals be trained in proper E&S control. Currently, professionals (who are not already licensed

Professional Engineers) are only required to pass an online test to be certified as a RLD, which does not provide the necessary level of training to properly implement and inspect E&S controls.

b) Privatizing the DCR's E&S training classes, which will allow the RLD requirement discussed above to be practicably implemented.

Currently, DCR offers three levels of training and instruction for E&S professionals:

- Basic Erosion and Sediment Control in Virginia (16 hours, \$80 course fee);
- Erosion and Sediment Control in Virginia for Inspectors (8 hours, \$50 course fee); and
- Erosion and Sediment Control in Virginia for Plan Reviewers (16 hours, \$80 course fee).

Eight Basic and Inspector classes and three Plan Reviewer classes were held in 2010; certification tests are offered only twice per year at four locations around the Commonwealth. These schedules present hurdles to professional wishing to become certified, especially those from smaller firms who may not have substantial travel budgets available for training.

To facilitate increased class attendance and certification:

- DCR's Basic Erosion and Sediment Control in Virginia class should be privatized to the point that it can be taught by a professional who both holds Plan Inspector certification and has been an active professional in the E&S field for at least one year; and
- Certification tests (subsequent to attending the corresponding class) should be conducted online to increase the number of professionals taking the test while reducing the costs associated with travelling to the test site.

c) Increasing sediment trap size.

The advisory group should consider the effect of increasing the required capacity of sediment-trapping facilities to 202 cy/ac (1.5" watershed-inches) of sediment storage in lieu of the current 134 cy/ac (1" watershed-inch) design standard and requiring that 68 cy/ac (0.5" watershed-inch) of that volume be wet storage. This capacity would allow the facility to capture approximately 1" of runoff on top of the wet storage volume before producing any outflow. The advisory group should consider the cost of such facilities against the potential nutrient and sediment removal. (It should be noted that the Fairfax County Public Facilities Manual already requires 202 cy/ac of capacity for sediment-trapping facilities within Resource Protection Areas.)

The MWCOG Report indicates that "it is important to establish and maintain a generous storage capacity" in sediment traps and basins. The MWCOG Report also notes that, "the presence of standing water has several evident benefits" to sediment removal but that, "the presence of standing water reduces the effective storage capacity." Chart 7 [FN43], below, indicates that the efficiency of sediment-trapping facilities increased from 45.6% to 65.1% when all storms were captured. Therefore, if facilities are sized to capture more storms, their efficiency should also increase.

Additionally, the advisory group should consider the benefit of permitting sediment traps to control drainage from only one acre, rather than three as is currently allowed under Minimum Standard #6. (Fairfax County has required this for many years.)

Chart 7. Instantaneous Removal Efficiency of Sediment Trapping Facilities [Please see page 20 of the original letter (Docket ID 0228.1.001.020).]

Increasing the size of sediment-trapping facilities also increases their detention time. As shown in Chart 8 [FN44], below, detention time has a large affect on effluent sediment; 6 hours of detention removes approximately 65% of sediments, while 24 hours of detention removes approximately 75% and 48 hours of detention removes approximately 90% of sediments.

Chart 8. Removal Rate Versus Pollutant Removal for Sediment Trapping Facilities [Please see page 21 of the original letter (Docket ID 0228.1.001.020).]

d) Considering the use of skimmers for sediment basin outfalls.

Skimmers (such as the Faircloth Skimmer; see Exhibit 7, Faircloth Skimmers) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] rise and fall with water levels in sediment basins, thereby removing the cleanest water during the dewatering process, unlike typical static dewatering risers which also remove sediment-laden water from lower in the water column. The advisory group should examine the effect that skimmers may have on reducing effluent sediment from sediment-trapping facilities.

e) Reducing unstabilized soil.

Consider requiring temporary soil stabilization for any sites that will remain dormant for longer than 7 days (rather than 30 as is currently required) and permanent soil stabilization for any sites that will remain dormant for longer than 60 days (rather than one year as is currently required).

The MWCOG Report indicates that, "temporary vegetative stabilization is the single most important factor in reducing downstream suspended sediment (providing a six-fold reduction)." Additionally, "extra efforts need to be made to reestablish vegetative areas that have failed or been damaged by construction equipment or activities."

Chart 6 [FN45], above, indicates that erosion control measures have the potential to reduce downstream sediment loads by 83%, while sediment-trapping measures increase that by only an additional 9%. Therefore, it is imperative that temporary or permanent stabilization be applied rapidly rather than relying on sedimenttrapping facilities to re-capture sediment after it has mobilized.

The four considerations above should help construction sites increase their efficiency from 40% to 80% (conservatively), thereby reducing their percentage of the Commonwealth's sediment "pie" from 2.8% to 1.4% (a 50% reduction) [FN46]. Additionally, TP will be similarly reduced from construction sites (from 1.3% to 0.7%) [FN47] because it is typically bound to the soil.

[FN 40] Chesapeake Bay Model Phase 5 Documentation, Chapter 9 Sediment Simulation (downloaded on October 25, 2010, at: <ftp://ftp.chesapeakebay.net/modeling/P5Documentation/SECTION%209.pdf>).

[FN 41] 283 mg/l (after erosion and sediment controls) divided by 4,145 mg/l (uncontrolled) = 93.1% removal , as

shown in Chart 6, below:

[FN 42] This requirement should include a two-year grandfathering period to allow sufficient time to train existing RLDs.

[FN 43] Schueler, T. and J. Lugbill. 1990. Performance of Current Sediment Control Measures at Maryland Construction Sites. Occoquan Watershed Monitoring Lab and Metropolitan Washington Council of Governments. Washington, DC. (Page 53.)

[FN 44] Schueler, T. 1987. Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. Metropolitan Washington Council of Governments. Washington, DC. (Page 3.12.)

[FN 45] Schueler, T. and J. Lugbill. 1990. Performance of Current Sediment Control Measures at Maryland Construction Sites. Occoquan Watershed Monitoring Lab and Metropolitan Washington Council of Governments. Washington,

[FN 46] Based on the Phase 5.3 Chesapeake Bay Model, released 7/21/2010.

[FN 47] Based on the Phase 5.3 Chesapeake Bay Model, released 7/21/2010.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0228.1.001.022

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

6. Allow New Construction with On-Site Sewage Disposal to Exceed NSF/ANSI Standards or Contribute to the Nutrient Trading Fund

New construction utilizing on-site sewage disposal should:

- a) Provide a wastewater treatment system that meets or exceeds NSF/ANSI standard 245 (which includes a 50% reduction of effluent nitrogen) in conjunction with a shallow-placed drip system if determined to be acceptable by the Virginia Department of Health (VDH) for site conditions; or
- b) Enter into an agreement with DCR that requires the septic field owner to pay quarterly to DCR's "Nutrient Trading Fund" an amount equal to the average sewer bill (during occupancy of the structure with said field) in that river watershed as established annually by the Virginia Board of Soil and Water Conservation.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

In the TMDL, EPA has attempted to identify and promote options for the jurisdictions to accommodate growth while meeting the

TMDL allocations. Offsets and trading use free market approaches to allow new and existing dischargers to meet their allocations by paying for pollutant reductions at another location. These approaches have been implemented in several Bay jurisdictions, including Virginia. Virginia is also seeking to expand its program to make offsets available to a wider range of dischargers. EPA supports this program expansion and believes the success of the program expansion, particularly for stormwater and on-site or septic systems, depends on the State's success in creating greater demand for load reductions from these sectors. Creating additional pressure on sectors that have not traditionally felt a demand to decrease their loadings will stimulate market activity in this area.

Also please see response to comment #. 0034-cp.001.001

Comment ID 0228.1.001.023

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

7. Allow Development Exceeding the Allowable WIP Loads to Contribute to the Nutrient Trading Fund Development that does not meet the WIP load requirements [FN52] with onsite stormwater facilities or other offset mechanisms should pay a fee to the Nutrient Trading Fund described in Action Item #5, above. This will facilitate installing the most cost-effective, nutrient-reducing measures.

[FN 52] For new development, no net increase in TN and TP loads from stormwater above 2025 average nutrient loads per acre from previous uses, and for redevelopment, 20% load reduction.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

In the TMDL, EPA has attempted to identify and promote options for the jurisdictions to accommodate growth while meeting the TMDL allocations. Offsets and trading use free market approaches to allow new and existing dischargers to meet their allocations by paying for pollutant reductions at another location. These approaches have been implemented in several Bay jurisdictions, including Virginia. Virginia is also seeking to expand its program to make offsets available to a wider range of dischargers. EPA supports this program expansion and believes the success of the program expansion depends on the State's success in creating greater demand for load reductions from these sectors. Creating additional pressure on sectors that have not traditionally felt a demand to decrease their loadings will stimulate market activity in this area.

Also please see response to comment #. 0034-cp.001.001.

Comment ID 0228.1.001.024

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The Action Items listed above outline Proposed WIP Modifications which achieve the EPA load allocation goals in a more cost-effective manner than the draft WIP or the EPA backstop. It should be noted that the Proposed WIP Modifications will achieve the EPA load allocation goals at the Commonwealth scale; however, localities and source sectors in some riversheds may need to trade with others to meet the allocations at the local and rivershed level; therefore, maintaining the NTE as proposed is critical.

In conclusion, I would like to again thank you for the opportunity to comment on Virginia's draft WIP. I believe the draft WIP proposed by the Commonwealth could easily be modified into a cost-effective and equitable solution to Virginia's portion of the Bay pollution problem by following the Proposed Sector Allocations and Action Items laid out in Exhibit 1. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1]

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0230.1.001.037

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

I. The TMDL does not acknowledge and accept Virginia's proposal to revise the chlorophyll standards and improve the modeling framework

Appendix 2 of Virginia's WIP contains a Draft James River Chlorophyll-a study plan. HRSD concurs with and supports the need for the stated tasks. Successful completion of this study plan is considered essential to address the stated deficiencies of the standard and the associated modeling framework that are referenced in these comments. EPA has ignored the importance or implications of this study in the Chesapeake Bay TMDL. The existing allocations listed in the EPA TMDL for the James River based on chlorophyll-a (23.48 mpy TN, and 2.340 mpy TP) should be replaced with allocations consistent with Tributary Strategies. EPA's TMDL should include the chlorophyll-a study in the TMDL. However, EPA must clearly state the level of unreliability that exists with the present chlorophyll-a standard and the modeling results in the TMDL document.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0231.1.001.006

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

EPA's Draft TMDL Backstop Actions on the Virginia Draft Phase I Watershed Implementation Plan (WIP)

UOSA believes that the Virginia draft WIP is based on solid guidance principles such as equity and cost effectiveness. The Virginia Phase I WIP also provides the regulatory stability point sources need to continue reducing nutrients loads to the Bay. Virginia (via its Water Quality Improvement Fund) and publicly owned treatment works (POTWs) have made and continue to make large investments in capital projects to reduce the inputs of nutrients to the Bay. Capital projects design and construction need to be based on firm long term water quality treatment goals. Continuously changing water quality goals will result in wasted public funds during one of the worst economic recessions in the Commonwealth and the nation and it also defies fiduciary responsibility.

Response

Please see response to comment # 0067.1.001.009

Comment ID 0235.1.001.010

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

The size of the Chesapeake Bay watershed, combined with the program's aggressive schedule, limits regulators' ability to consider localized conditions. This creates unrealistic requirements in terms of what land Poquoson controls and can treat, and what "on the ground" treatment practices are feasible.

Response

Thank you for your comment. EPA and the state partners have agreed to ensure that all pollution control measures needed to fully restore the Bay and its tidal rivers are in place by 2025, with 60 percent of the actions completed by 2017. With each successive WIP in Phase II and Phase III, it is expected that each jurisdiction will work with its local partners to refine the allocations in the Phase I to a finer scale. EPA encourages Poquoson to continue to work with the Commonwealth of Virginia and participate in the Phase II WIP development process.

Comment ID 0246.1.001.001

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

We agree with EPA that Virginia's Draft Watershed Implementation Plan (WIP) is grossly inadequate and fails to provide reasonable assurances that the state will meet its pollution reduction goals under the EPA's Chesapeake Bay Total Maximum Daily Load (TMDL). Unfortunately, Virginia has simply repackaged its existing, under-performing programs instead of using the WIP as an opportunity to launch new ideas and better management goals. Ideally, Virginia will develop a WIP that sets out an effective plan and commits the resources needed to achieve its waste load allocations set out in the TMDL. We urge Virginia to remedy the problems in its WIP, maintain control of the clean-up plan, and clean up local waterways and bays in the process but in a way that works for Virginians. However, Given the inadequacies of Virginia's draft WIP, and in the event that Virginia fails to significantly improve its WIP, we have no choice but to support EPA's proposed backstops in the draft TMDL and encourage EPA to follow through with the proposed backstops.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0246.1.001.003

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Shenandoah Riverkeeper has been heavily engaged in assessing and addressing the agricultural pollution in the Valley. Over approximately the last four years, Shenandoah Riverkeeper has conducted an extensive survey of animal feeding operations (AFOs), primarily dairies and poultry farms, but also beef cattle operations, among others. Our work revealed a number of problematic practices, including many that we consider direct stream discharges and large sources of pollution. The existence of these problematic practices confirms EPA's conclusion that Virginia's WIP will be insufficient to restore the Bay in the absence of significant programmatic changes. Current state and federal programs, both mandatory and voluntary, do not sufficiently address the pollution that we have documented and described in these comments. Addressing these sources of pollution and meeting the TMDL's waste load allocations would require a significant upgrade of Virginia's existing programs.

Although Virginia has enjoyed some success statewide with the voluntary implementation of best management practices, our survey and stream analysis reveal that these steps have occurred only in certain sectors, while failing to take hold on a wide scale in others. Furthermore, there are large areas of the state where cultural practices and farm economics seem to have prevented significant improvement at all. We base this not only on our own visual survey, but also on stream pollutant monitoring results. Unfortunately, the WIP proposes largely a continuation of the efforts that have failed to date.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0246.1.001.005

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Virginia submitted its WIP to EPA and to the public for comment on September 24, 2010. In comments on the WIP, EPA concluded that Virginia's WIP has "serious deficiencies" with respect to improving existing programs to achieve the additional pollution reductions needed to restore the Bay. In so finding, EPA noted that, "[t]he WIP does not include mechanisms that would support [the] high implementation rates" of various pollution control practices that the WIP relies on.[FN 5] Furthermore, EPA does not have reason to believe that Virginia can achieve the "high implementation rates" without "legislative and regulatory changes . . . [such as the] proposals presented to Virginia's WIP Stakeholder Advisory Group." [FN 6] Finally, Virginia's WIP failed to provide reasonable assurances that the programs proposed would be adequately funded.[FN 7]

After outlining the deficiencies in Virginia's draft WIP, EPA offered suggestions for how Virginia could improve its plan. With respect to pollution from agriculture, EPA first suggested that Virginia expand its Nutrient Management Plan (NMP) requirements to require more best management practices (BMPs).[FN 8] In order to correct the disconnect between Virginia's BMP implementation goals and the efficacy of the programs relied on in the WIP, EPA suggested that Virginia expand its regulation of AFOs in order to ensure that enough farms actually install those BMPs.[FN 9] EPA further suggested that Virginia lower the threshold of the CAFO permit to include smaller AFOs and specified that the scope of the program be designed to cover small dairies.[FN 10] Furthermore, to satisfy EPA, Virginia's "WIP should include any program-building milestones such as studies, legislative proposals, or cost-share program enhancements that are expected to occur." [FN 11] Lastly, to remedy the lack of assurances regarding Virginia's funding for its WIP, EPA suggested that Virginia's WIP include "a strategy and schedule for addressing program funding and staffing gaps." [FN 12]

[FN 5] ENVTL. PROT. AGENCY, EPA COMMENTS ON THE VIRGINIA DRAFT PHASE I WATERSHED IMPLEMENTATION PLAN 2 (Oct. 4, 2010).

[FN 6] ENVTL. PROT. AGENCY, EPA EVALUATION OF VIRGINIA DRAFT WATERSHED IMPLEMENTATION PLAN 1 (Sept. 24, 2010).

[FN 7] ENVTL. PROT. AGENCY, EPA COMMENTS ON THE VIRGINIA DRAFT PHASE I WATERSHED IMPLEMENTATION PLAN 4 (Oct. 4, 2010).

[FN 8] ENVTL. PROT. AGENCY, EPA EVALUATION OF VIRGINIA DRAFT WATERSHED IMPLEMENTATION PLAN 2 (Sept. 24, 2010).

[FN 9] Id. See also DAVID MCGUIGAN, ENVTL. PROT. AGENCY, REGION III AFO/CAFO INITIATIVE 28, 29 (Sept. 30, 2010), available at www.epa.gov/.../2010_0930_dave_mcguigan_region3_afo_cafos_initiatives.pdf.

[FN 10] ENVTL. PROT. AGENCY, EPA COMMENTS ON THE VIRGINIA DRAFT PHASE I WATERSHED IMPLEMENTATION PLAN 3 (Oct. 4, 2010).

[FN 11] Id.

[FN 12] Id. at 4.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0246.1.001.007

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

B. Shenandoah Riverkeeper's Evaluation of the WIP

We agree with the EPA that Virginia's WIP fails to provide any reasonable assurances that Virginia's pollution control efforts will occur and that the state will stay within its waste load allocations under the Bay TMDL. Virginia's WIP is little more than a repackaging of its existing programs, which have proved ineffective in addressing urban stormwater and agricultural runoff. As EPA noted, Virginia fails to propose programs that are likely to translate into the necessary pollution reductions. Virginia offers neither concrete incentive programs nor does it pledge to increase regulation. Without additional funds and better program staffing, Virginia provides no reason to expect this trend to change.

1. Examination of the Deficiencies in the WIP's Agriculture Provisions

The WIP indicates that Virginia will achieve its waste load allocations for agriculture by implementing a menu of BMPs on a very high percentage of the state's farms. The WIP, however, does not dedicate meaningful funding or propose any significant new regulatory programs to actually achieve these high implementation rates. Indeed, the WIP proposes a continuation of current programs, which have proven inadequate to control agricultural pollution, particularly in the areas of heavy animal agriculture like the Shenandoah Valley.

Virginia's current method of managing agricultural pollution relies on voluntary programs and three kinds of mandatory permitting programs. The voluntary programs include cost sharing and tax credits. Both programs compensate a farmer for implementing a specific BMP up to a percent of the cost or a fixed maximum.[FN15] As outlined fully in the TMDL, these voluntary incentive programs have not been adequate to address agricultural pollution.

Virginia's current permitting programs consist of a general Virginia Pollution Abatement (VPA) permit, a VPA permit specific to poultry, and a Virginia Pollution Elimination System (VPDES) permit for CAFOs. The minimum thresholds for regulation are as follows: the VPA general permit applies to operations consisting of more than 200 dairy cattle, 750 swine, or 3,000 sheep/lambs; the VPA poultry permit applies to farms with more than 20,000 chickens or 11,000 turkeys; and the VPDES permit applies to large CAFOs, which are defined as having more than 700 dairy cows, 2500 swine, or 55,000 turkeys. The fundamental problem is that these high program thresholds mean that the great majority of Virginia's farms escape regulatory oversight, and that the VPA program (which covers more farms than the VPDES program) does not comprehensively address all types of pollution caused by a feeding operation.

There are several reasons why the existing permit regime does not adequately address agricultural pollution. First, the VPA program does not have high compliance rates across all farming sectors. In a recent survey, EPA found that only ten percent of all dairy farms comply with the VPA program.[FN 16] This means that even the waste management and application practices are not being enforced on ninety percent of dairy farms. Second, only thirty-three farms of any kind in Virginia's Shenandoah Valley have registered with DEQ under the VPA general permit.[FN 17] VPA's poor coverage of AFOs in Virginia is further highlighted by the fact that the average farm size in the Valley is equal to 100 dairy cows, or half of the minimum VPA permit threshold.[FN 18] This figure looks especially small when compared with the estimated 27,000 cattle farms in Virginia.[FN 19] Third, only the VPDES permit requires BMPs that go beyond nutrient management and application. Most significantly, this is the only program that deals with contact between production areas and surface waters, one of the most important areas for future pollution reductions. There are only about thirty permitted CAFOs in Virginia.[FN 20] Thus, few farms are required to implement these additional BMPs.

Virginia's voluntary programs have also proven unsuccessful in generating high percentage levels of BMP implementation. Participation in voluntary programs in the Valley is very low. In fact, Shenandoah Riverkeeper's evaluation of the records reveal only 177 farms have participated in the stream exclusion program.[FN 21] Relative to the number of farms in the valley or in Virginia and the variety of BMPs, this indicates low levels of participation. The deeply impaired state of nearly every stream in the Shenandoah Valley provides additional commonsense evidence to support this conclusion given that over 97% of non-forested land is in agriculture. Given the high levels of pollution from agriculture in Virginia, the current programs, both mandatory and voluntary, are not effective.[FN 22]

To meet the waste load allocations in the TMDL, Virginia relies on very high levels of BMP implementation. However, as EPA recognized, Virginia intends to attain these implementation levels through its voluntary and permitting programs.[FN 23] Yet Virginia provides no reason to believe that these programs will be more successful in the future than they have been previously. The WIP provides no details as to how it will expand the coverage of these programs and fails to commit any meaningful funding to implement them.[FN 24] Critically, the WIP fails to describe how Virginia would meet the staff requirements for technical assistance to execute and monitor the incentive-based programs.[FN 25] Virginia does indicate that it might amend its VPA and VPDES regulations to make certain BMPs requirements for getting a permit.[FN 26] However, Virginia does not specify when the regulations will be changed or if all permitted entities will be subject to this requirement.[FN 27] Even if these regulations are amended, they still will fail to cover a large number of farms in the state.

We would strongly prefer to see Virginia develop an adequate WIP, and thereby allow the state to maintain control over how it will achieve its share of restoring the Bay. The state's failure to commit to a real implementation plan left EPA no choice but to propose the backstops outlined in the TMDL. This choice is a step backward for Bay restoration, and also a missed opportunity to work cooperatively with Virginia's farmers to reduce water pollution. If Virginia fails to amend its WIP and provide reasonable assurances that it will meet its waste load allocations, then Shenandoah Riverkeeper supports the EPA in applying those backstops.

2. Nutrient Management Unaddressed by the WIP

There are several other issues that neither the TMDL nor the WIP address that are currently, or soon will be, significant risks for both local water quality and the health of the Bay.

One current issue that neither document deals with is the growing intensity of animal feeding in the Valley, and the fundamental problem of excess manure and other waste. Neither document addresses either how to facilitate restructuring of the industry in an economically and sustainable way, or how to dispose of the tremendous amounts of waste produced by chicken, dairy, and beef operations. Although none of these are explicit in the WIP, in discussions about Bay restoration and agriculture, the McDonnell administration has put forth three clear assertions that fail to capture the reality on the ground. The first assertion is that most of the agricultural pollution problems can be attributed to "bad actors." The second assertion is that these bad actors can be addressed by the Agricultural Stewardship Act. The third assertion is that our voluntary programs are working and if we just continue them we'll get to our Bay restoration goals.

Shenandoah Riverkeeper addresses each of these assertions in some way in these comments but we also feel that it is important to provide some general context. We assert that now is the time for Virginia to recognize there are severe agricultural pollution problems originating in the Shenandoah Valley. The problems are not a reflection on the land stewardship of Virginia's farmers, but simply arise from the complexities of an evolving agricultural society rooted in practices established over generations. The environmentally problematic practices developed when agriculture was much less intense, when arable land was plentiful, and when there was little emphasis on how farming affects water quality and public water resources.

These polluting farming practices have not adapted to changing circumstances over time, and have become more damaging as agriculture has intensified. Over the past several decades, the number of animals per acre and the amount of fertilizer applied to crops have both steadily increased. Meanwhile, families have grown, farms have been divided, and farming products have been commoditized and devalued through a consolidation and vertical market integration of meat, eggs and milk. Families now have to survive off much less land, while receiving comparatively less money for the same product.

Unfortunately, many farmers believe the type of changes needed to protect water quality will be detrimental to their livelihood. However, it is clear that two things are needed to restore the Bay and protect the Shenandoah River. First, we need more than small, incremental changes in how our farms interact with groundwater and surface water. Significant restructuring of some farms will be required, which cannot happen without significant support from the state and federal governments. Neither the inadequate funding of the state's WIP or EPA's increased regulations addresses this need. Second, we must find alternative markets for the huge amounts of manure generated in the Valley, so that this manure is no longer a burden on the watershed. It is estimated by industry that nearly 2 billion pounds of feed, mostly corn and soy are shipped into the Valley annually for use as poultry livestock feed. The importation of feed represents an overwhelming nutrient input in the Valley. This is the kind of imbalance that is created when you add five major poultry integrators and 700 confined poultry operations on top of an already mature agricultural industry of dairy and cattle. Ultimately the nutrients which are not exported (carried) out of the valley as meat either accumulates in the soils or is carried by our rivers into the Chesapeake Bay. Buffers and nutrient management will not undo the basic net importation of nutrients, and therefore they won't solve the fact that the amount of nutrients generated in waste far exceeds the agronomic uptake of all the crops grown here. Both Virginia and EPA fail to address any possible alternative uses of manure, such as energy.

The WIP also fails to address the use of phosphorus site index (P Index), which is an inadequate method of managing nutrient application. In this regard, Riverkeeper endorses the Chesapeake Bay Foundation's position, wherein they argued that: phosphorus site index. . . is not sufficiently protective of water quality. While the P Index is a valuable tool

in identifying regions at high risk for phosphorus loss, soil scientists that developed the P Index state in no uncertain terms that the P Index is not an adequate tool to address regional imbalances in manure. They strongly recommend that all producers be encouraged to apply manure at rates designed to meet plant uptake requirements and avoid over-application of phosphorus. They note that continued reliance on the P Index in areas where manure is produced in excess of crop needs is not sustainable in the long term, and will lead to an eventual build up of soil phosphorus to levels where no further phosphorus can be applied.[FN 28] As a result, the Chesapeake Bay Foundation and the Riverkeeper ask that "the Virginia Nutrient Management Standards and Criteria be modified to phase out the use of the P Index . . . by 2017 for biosolids application and poultry litter, and by 2025 for other livestock." [FN 29]

[FN 15] DEP'T CONSERVATION & RECREATION, VIRGINIA AGRICULTURAL BMP COST SHARE AND TAX CREDIT PROGRAMS. http://www.dcr.virginia.gov/soil_and_water/costshar.shtml (last visited Oct. 29, 2010).

[FN 16] DAVID MCGUIGAN, ENVTL. PROT. AGENCY, REGION III AFO/CAFO INITIATIVE 28, 29 (Sept. 30, 2010), available at www.epa.gov/.../2010_0930_dave_mcguigan_region3_afocafo_initiatives.pdf.

[FN 17] TELEPHONE CONVERSATION WITH DEQ EMPLOYEE, VALLEY REGIONAL OFFICE, (types of farms registered under VPA general permit: 28 dairy, 2 swine, and 3 cattle farms).

[FN 18] TELEPHONE CONVERSATION WITH DEQ EMPLOYEE, VALLEY REGIONAL OFFICE (stating that average farm size in Shenandoah Valley is 100 dairy cows).

[FN 19] WATERSHED IMPLEMENTATION PLAN, *supra* note 32, at 63 (there are about 27,000 farms in Virginia with at least cattle on them).

[FN 20] ENVTL. PROT. AGENCY, DRAFT CHESAPEAKE BAY TMDL: SECTION 4: SOURCES OF NUTRIENTS AND SEDIMENT TO THE CHESAPEAKE BAY 30 (Sept. 24, 2010).

[FN 21] DEPARTMENT OF CONSERVATION AND RECREATION, AGRICULTURAL BMP AND CREP DATABASE QUERY PARAMETER SELECTION FORM (NOVEMBER 2, 2010), available at <http://webdat.dcr.virginia.gov/cfprog/dswc/bmpprm.cfm>.

[FN 21] *Id.*

[FN 22] WATERSHED IMPLEMENTATION PLAN, *supra* note 19, at 58-65.

[FN 23] *Id.*

[FN 24] *Id.*

[FN 25] *Id.* See e.g., WATERSHED IMPLEMENTATION PLAN, *supra* note 19, at 63 ("Livestock Stream Exclusion").

[FN 26] *Id.*

[FN 27] *Id.*

[FN 28] Chesapeake Bay Foundation, Comments on Chesapeake Bay TMDL Phase 1 Watershed Implementation Plan prepared by the Commonwealth of Virginia 16 (2010).

[FN 29] *Id.* at 16-17.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0246.1.001.009

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Figure 3: Streambank destroyed by cattle resulting in erosion of bank and sediment destroying instream life. [Please see page 9 of original document (Docket ID .0246.1).]

Virginia's WIP includes livestock stream exclusion as one of the primary BMPs to be implemented to achieve agricultural pollution reductions. In the WIP, Virginia sets the goal of 95 percent implementation of this BMP by 2025 to achieve the TMDL's pollution reduction goals. [FN 30] However, the WIP does not explain how the state will achieve such a high rate of implementation with this BMP. Indeed, the state is already behind in working towards this goal. The Chesapeake Bay Foundation calculated that Virginia only achieved thirteen percent of the goal for stream fencing during 2009, the first year of the Chesapeake Bay Program's three-year "milestone" reporting period.[FN 31]

Virginia proposes improving the permit requirements for both AFOs and CAFOs by including livestock stream exclusion as a clear requirement. Currently, CAFOs must "design, construct, and maintain" the production area in a way that "contain[s] all manure, litter, and process wastewater including the runoff and the direct precipitation." [FN 32] Virginia plans to clarify this requirement by adding stream exclusion as a requirement of the NMP that must be prepared and implemented by all CAFOs.[FN 33] This requirement would only apply first to permitted CAFOs, which constitute a small portion of the state's farms. Virginia also intends to extend this requirement to AFOs that are required to comply with the VPA general permit.[FN 34] Changing the requirements of the AFO General Permit to include livestock stream exclusion will only affect farms with more than 300 animal units, or about 200 dairy cattle.[FN 35] Although this is an important step, it will leave many small dairies and most grazing operations unaddressed.

In order to achieve ninety-five percent implementation of this BMP by 2025, Virginia states that all farms with twenty or more cattle will need to engage in this practice.[FN 36] Therefore, to reach farms with twenty or more cattle and less than 200 cattle, which is the lower limit for VPA permit application, Virginia will have to rely on voluntary programs. According to the 2007 Agricultural Census, in Virginia there are 666 dairy farms that will need to use the voluntary program.[FN 37] However, voluntary programs for this practice have been available for decades and yet have generated only low levels of implementation.[FN 38] The WIP commits no new funding for these programs and does not provide a strategy for improving their implementation. Therefore, Virginia has not provided reasonable assurances that it will improve its incentive programs to generate the necessary levels of implementation with this best practice in order to actually reduce pollution in the Bay.

[FN 30] 40 C.F.R. § 412.31(a)(ii); 40 C.F.R. § 412.43 (dairy, cattle; veal, poultry). See also, 9 VA. ADMIN. CODE § 25-191-50.

[FN 31] L. PRESTON BRYANT, JR., PROGRESS REPORT ON THE CHESAPEAKE BAY AND VIRGINIA WATERS CLEANUP PLAN, (DEC. 31, 2009), available at

[http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD4712009/\\$file/RD471.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD4712009/$file/RD471.pdf).

[FN .32] WATERSHED IMPLEMENTATION PLAN, *supra* note 19, at 63. This would be an addition to 9 VA. ADMIN. CODE § 25-191-50.

[FN 33] WATERSHED IMPLEMENTATION PLAN, *supra* note 19, at 63.

[FN 34] 9 VA. ADMIN. CODE § 25-192-10.

[FN 35] WATERSHED IMPLEMENTATION PLAN, *supra* note 19, at 63. [

[FN 36] NATIONAL AGRICULTURAL STATISTICS SURVEY, USDA, 2007 CENSUS OF AGRICULTURE (2007) (Sum of number of farms in 2007 with more than 20 and less than 199 milk cows), available at

http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Virginia/index.as.p.
[FN 37] DEP'T OF CONSERVATION & RECREATION, PROGRAM YEAR 2011: VIRGINIA AGRICULTURAL COST SHARE (VACS) BMP MANUAL CCI-SE-1-1 (2010) (paying \$1 per linear foot of fencing).
[FN 38] WATERSHED IMPLEMENTATION PLAN, supra note 19, at 62.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0246.1.001.012

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Despite the prevalence of poor practices in the Valley, no portion of the Virginia WIP directly references or seeks to limit the practice of streamside feeding and concentration or proper manure management for winter cattle feeding areas and supplemental dairy feeding areas. Although the WIP attempts to address stream intrusion, it neglects to address streamside feeding and concentration. Fencing the animals out of the stream, while allowing them to be concentrated near the stream, is self-defeating.

Vegetated buffers are only a partial solution to this practice, but they are the only portion of the WIP that even tangentially addresses the effects of streamside feeding and concentration. Buffers establish a minimum distance between livestock concentration and streams, while also performing important filtering functions. The WIP only targets vegetated buffers on crop and hay fields.[FN 39] Buffers are only required at permitted AFOs and CAFOs with respect to manure application; this requirement only applies to the few CAFOs and AFOs that are regulated in the state of Virginia,[FN 40] leaving most farms uncovered. In this case, none of the current programs or the WIPs proposed changes address livestock concentrations near streams at dairies and other AFOs.

Eventually, all confinement and concentration areas need to implement both effective nutrient capture systems and must be physically covered to eliminate environmental exposure. Even though the complexity and cost of implementing the necessary changes will not be insignificant, there are huge benefits to be reaped in the form of water quality improvements. Thus, the Commonwealth should immediately launch a new effort to help farmers with this important task. In the meantime, the Commonwealth should prohibit animal concentration near streams to establish a physical separation and allow nutrients and sediment to be absorbed agronomically. Virginia could address this issue by adding a new requirement to VPA and VPDES permits stipulating that animals not be concentrated near stream channels, including intermittent channels. Additionally, Virginia should lower the animal unit level for VPA permits or use effective incentive programs to increase implementation of any or all of these practices.

[FN 39] 9 VA. ADMIN. CODE § 25-191-50; 9 VA. ADMIN. CODE § 25-192-70.

[FN 40] WATERSHED IMPLEMENTATION PLAN, supra note 19, at 64.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0246.1.001.015

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Virginia's Draft WIP is inadequate with respect to manure storage because it does not offer any improvement on the programs that are currently in place. Virginia aims to have ninety-five percent of all "concentrated livestock and poultry operations" implement manure management systems by 2025.[FN 41] Because "concentrated livestock and poultry operations" is not well defined in the WIP or in a statute, the scope of Virginia's goal is hard to assess. Nonetheless, Virginia's strategy for achieving this high level of implementation does not provide EPA with reasonable assurances. As discussed fully above, the current program has major gaps, which the WIP does not adequately close.

Figure 8: Water lagoon completely full in winter, evidence of previous overflows right next to stream. [Please see page 13 of original letter (Docket ID .0246.1).]

Waste management systems are currently required of permitted CAFOs and AFOs, but is presently not well enforced, a flaw that the WIP fails to remedy. CAFOs with a VPDES permit as well as AFOs with either a general or poultry VPA permit are required to address manure storage and application as part of their NMPs.[FN 42] More specifically, all three kinds of permits require that the permitted farm maintain adequate manure storage to "accommodate periods when the ground is ice covered, snow covered or saturated, periods when land applications of nutrients should not occur due to limited or nonexistent crop nutrient uptake." [FN 43] Virginia's draft WIP calls for "better accounting for practices already required," but provides no details, and therefore no reasonable assurances, as to how these requirements will be better enforced. [FN 44] Virginia does not indicate whether or not it will hire more inspectors or improve its inspection schedule in order to achieve this part of its goal. Again, as with many aspects of the WIP, Virginia does not identify funding or any other mechanism to provide reasonable assurances that improvements will actually occur.[FN 45]

Virginia also fails to provide reasonable assurances that it will attain high implementation rates of manure management systems at currently unregulated farms. The Draft WIP states that, "Animal Waste Management Systems may be installed and managed . . ." [FN 46] By using optional language Virginia fails to establish any real new requirements for the farms like the ones that Shenandoah Riverkeeper has observed. Likewise, Virginia's Draft WIP explains that, "[f]ull achievement may not be accomplished without establishing new expectations for farms below current permit thresholds." [FN 47] Although Virginia notes that improvement with respect to this bad practice is unlikely without lowering the permitting threshold, Virginia fails to actually reduce the threshold. Therefore, the manure storage section of the WIP constitutes a failure on the part of Virginia to lay out real enforcement, funding, staffing, or other programmatic commitments needed to get the job done. This failure is consistent with EPA's conclusion that Virginia's Draft WIP "did not identify programs to sufficiently reduce pollution to meet TMDL allocations and provide assurance the programs could be implemented." [FN 48]

[FN 41] 9 VA. ADMIN. CODE § 25-191-50; 9 VA. ADMIN. CODE § 25-192-70; 9 VA. ADMIN. CODE § 25-630-50.

[FN 42] 9 VA. ADMIN. CODE § 25-191-50(II)(A)(1); 9 VA. ADMIN. CODE § 25-192-70(I)(B)(7); 9 VA. ADMIN. CODE § 25-630-50(III)(B)(1). See also VA. ADMIN. CODE § 25-630-50(III)(B)(14) (limiting application of poultry waste to the schedule in the NMP, and prohibiting application to "ice- or snow-covered ground").

[FN 43] Id. (emphasis added).

[FN 44] See ENVTL. PROT. AGENCY, DRAFT CHESAPEAKE BAY TMDL: EXECUTIVE SUMMARY 1 (Sept. 24, 2010).

[FN 45] Id. (emphasis added).

[FN 46] Id.

[FN 47] ENVTL. PROT. AGENCY, DRAFT CHESAPEAKE BAY TMDL: EXECUTIVE SUMMARY 1 (Sept. 24, 2010).

[FN 48] WATERSHED IMPLEMENTATION PLAN, *supra* note 19, at 62.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0246.1.001.017

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Virginia's Draft WIP plans to increase the use of grass buffers around perennial surface waters. The scope of this requirement leaves important small and intermittent waters unprotected from particularly harmful activities. Farming directly through small and intermittent waters leads to directly dumping chemicals, nitrogen, phosphorous, and sediment into the waters, which then feeds into the Chesapeake Bay. It should be noted that the normal flow regimes of these small intermittent streams coincide exactly with the periods where farm inputs are greatest, which is during the winter and spring. While small intermittent streams are often overlooked and disregarded, they deserve attention because they act as headwaters that will inevitably carry substantial pollutants downstream to larger tributaries.

Furthermore, Virginia's Draft WIP provisions on buffers do not provide reasonable assurances that ninety-five percent of all farms will comply with its new requirement. Because adding a new requirement will only affect permitted farms, and many farms do not require a permit, Virginia has not proven that it can attain the stated level of compliance. Virginia has not indicated that it will expand the scope of its agricultural permits or that it will develop effective incentives to cover unpermitted farms.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0253.1.001.017

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

Henrico County adopts the WIP comments submitted VAMWA and VAMSA on Virginia's WIP, and incorporates those comments by reference as if fully set forth herein. Additionally, the County will defend vigorously any claim of waiver due to failure to submit comments to the WIP on the basis that insufficient time was given to adequately respond.

The County appreciates Virginia's efforts to incorporate flexibility and cost effectiveness into the draft WIP; however, the James River basin urban runoff sector allocations in the draft WIP would impose massive financial costs on the County's MS4 system in an effort to reduce phosphorus loads below the larger backstop phosphorus allocation proposed by EPA (an average 54% percent phosphorus reduction). Even at the EPA allocation, Henrico County would still have to expend an estimated \$848 million to \$1.25 billion over the implementation period, plus the cost of land acquisition, to achieve the backstop sector allocation.

Henrico County supports Virginia's expansion of its nutrient trading program in the WIP. However, the draft WIP's reliance on the availability of credits from the point source and agriculture sectors to assist the MS4s in attaining their sector allocations may be misplaced. There is no assurance that the credits will be generated when and where needed. The credits would be generated from excess flow capacity and, therefore, would be available to the MS4s on a temporary basis. The reductions that would be required of urban runoff with the draft WIP allocations are so great that the demand for credits could exceed the supply, thus driving up their cost and limiting their availability to the Localities, particularly if the Localities are forced to compete with private developers for the credits. The effect of this plan will result in the involuntary redistribution of the resources of the sector that contributes least to pollution in the Bay, urban stormwater runoff, to that sector that contributes the greatest amount of pollution, agriculture.

Both the Virginia WIP and EPA "backstop" allocations for the urban runoff sector are beyond a level that is practicable of attainment. It is impossible to predict the full extent of the socio-economic consequences of attempting to undertake an effort of this magnitude because such an undertaking has never been tried before. However, we can state with confidence that there is no assurance that the load reductions that would be required to achieve the backstop allocations can be accomplished by EPA's 2025 deadline, and that, on a pound-for-pound basis, the cost would be totally out of portion to any water quality benefit. It is estimated that it would cost the County approximately \$848 million to \$1.25 billion to reduce phosphorus loads to the levels needed to comply with the backstop allocations. See CDM Technical Memorandum [Comment Letter contains additional information in the form of an attachment. See original comment letter 0253.2].

Further, this cost estimate does not reflect the added cost of acquiring the land needed for the installation of BMPs and on-going maintenance of the BMPs. Id. Henrico County owns or controls very little of the impervious land area that would have to be treated to achieve the backstop phosphorus allocation. The remaining reductions would have to be achieved with retrofits on private land. Since the County cannot force private land owners to retrofit in the absence of redevelopment requiring local land use approvals, the County would have to negotiate for the purchase of the land needed for the easements or acquire the land by condemnation. Land acquisition is an expensive and time consuming process that will add greatly to the cost and time required to achieve the reductions.

Henrico County encourages Virginia to respond to EPA's backstop allocations by revising its WIP to include the

additional commitments needed to demonstrate to EPA that the Commonwealth can achieve the draft WIP allocations for the agriculture and onsite septic systems sectors. Such a demonstration would remove the backstop allocations and allow Virginia to distribute a portion of the allocations now assigned to the agriculture.

The County recognizes the need to assign some portion of the additional allocations to the point source sector to accommodate long-term growth and to generate credits. However, as explained above, the allocations in the draft WIP placed too much reliance on credits to offset the consequences of the small allocations to the urban runoff sector and did not reflect a cost-effective and equitable distribution among the two sectors.

Response

See response to Comment No. 0034-cp.001.001 and 0431.1.001.004.

Comment ID 0259.1.001.001

Author Name: Jackson Marjorie

Organization: The Elizabeth River Project

The Elizabeth River Project strongly supports Virginia's development and implementation of a TMDL Watershed Implementation Plan for nitrogen, phosphorous, and sediment. This may be the most promising step yet for both Virginia and the US EPA toward reducing nutrients, the top challenge for restoring the Chesapeake Bay. This plan is especially critical for our home river, the Elizabeth and its Lafayette branch, which exhibit some of the highest nutrient levels in the Chesapeake Bay. Each summer, a massive algal bloom starts in the Lafayette River and spreads into the lower bay. In some cases these blooms have led to fish kills.

In regard to specific elements of your draft plan, we are encouraged by your intent to reduce nutrients and many good ideas included in the draft plan.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0259.1.001.002

Author Name: Jackson Marjorie

Organization: The Elizabeth River Project

We also have several significant concerns:

- Our review indicates the need throughout for a clearer commitment to the plan. The language indicates Virginia will

"consider" and "explore" many promising strategies. To achieve the significant improvements in water quality that are imperative for restoring the Chesapeake Bay, the plan needs to identify many more of these strategies that definitely will be put into action, and provide more details of how and when each such strategy will be carried out.

- We are highly concerned that the plan acknowledges that Virginia does not expect to meet EPA's requirements for 2025 nitrogen and phosphorous allocations in the James River, which includes the Elizabeth sub-watershed. EPA's draft allocation is 23.480 million pounds/year for nitrogen and your plan anticipates a load of 26.790 million pounds per year (p.7). For phosphorous, the EPA draft allocation is 2.3 million pounds/year for the James, while your plan anticipates a load of 2.690 million pounds/year for the James. Much restoration is underway with a high degree of community commitment to restore the James and its Elizabeth River sub-watershed. You indicate being able to meet the EPA allocations in other tributaries. The James/Elizabeth system should be no different.

We provide further discussion of these issues and stand by to help in any way that would be useful to you.

NEED FOR STRONGER COMMITMENTS

1) We are encouraged that Virginia is considering a list of potential monitoring and control measures to reduce urban sources of nutrients (p. 78, 79), including:

- considering requiring reporting for lawn care companies,
- considering nutrient management plans for municipalities/counties and golf courses,
- investigating sales restrictions on do-it-yourself fertilizers such as a possible ban on phosphorous and requiring fertilizers to include a significant percentage of slow-release nitrogen and time-release restrictions for sale of fertilizers,
- considering prohibiting nitrogen in de-icers, and
- considering requiring proper storage and disposal of fertilizers by retailers.

that the final implementation plan indicate a significant number of these strategies that Virginia is committed to carrying out, and provide more details for how they will be implemented including a timeline.

2) We support the list of "contingency" actions that your plan says could be implemented if allocations are not met through other strategies (p. 79, 80). In fact, your contingency wording should be strengthened from "could be employed if allocations are not met," to "will be employed if allocations are not met."

3) The plan relies heavily on meeting nutrient reductions for urban stormwater using the Virginia Nutrient Credit Exchange Program. However, the plan does not provide enough detail to determine if trading between wastewater and urban stormwater would be effective. We recommend strengthening the plan to provide specific details of how the Nutrient Credit Exchange System would work for stormwater and wastewater credit exchanges in an urban environment. This information should include how credits would be established and traded.

NEED FOR STRONGER JAMES/ELIZABETH RIVER FOCUS

4) As indicated, we are highly concerned that the proposed plan acknowledges that Virginia does not expect to meet EPA's requirements for 2025 nitrogen and phosphorous allocations in the James River, which includes the Elizabeth sub-watershed. The massive algal blooms in the lower bay emphasize the need for significant reductions in nitrogen and phosphorus. We recommend a more aggressive strategy that would enable the James and the Elizabeth to meet

the required allocations and would be eager to use our consensus-building experience to help develop approaches that might obtain broad stakeholder support.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0288.1.001.005

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

VAMWA supports the embodiment of the Virginia approach to POTW wasteload allocations from Virginia law and regulations into its WIP, and urges EPA to accept this element of Virginia's WIP. The wasteload allocations ("WLAs") found in Virginia's Draft WIP are derived primarily from Virginia's Water Quality Management Planning ("WQMP") Regulation (9VAC25-720), Virginia's Chesapeake Bay Watershed General Permit Regulation (9VAC25-820), and "all SWCB-approved amendments" to those regulations. VAMWA supports an approach that recognizes the need for this regulatory stability.[FN5]

[FN5] VAMWA has consistently advocated regulatory stability throughout this process. For example, VAMWA provided recommendations on regulatory stability to the Chesapeake Bay Wastewater Treatment Working Group on June 9, 2009 (attached hereto as Appendix 3) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A3]. See also December 11, 2008 Memorandum from VAMWA/MAMWA Chesapeake Bay Team to CBP Water Quality Steering Committee (Representation of VA and MD POTW Loads in Model Scenarios) (attached hereto as Appendix 4) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A4].

Response

Virginia did not submit a draft WIP that met its TMDL allocation for phosphorous and nitrogen. Because Virginia did not meet the nutrient allocations, nor did Virginia submit a WIP consistent with EPA's April 2010 "Guide for EPA's Evaluation of Phase I Watershed Implementation Plans." EPA was required to assign backstop allocations to Virginia in the draft TMDL so that its allocations would be met. The backstop allocations focus on sources where EPA has federal authority, including NPDES-permitted wastewater treatment plants. This action is consistent with EPA's December 29, 2009, letter sent to each jurisdiction within the Chesapeake Bay watershed.

EPA has reconsidered its approach to federal backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final Phase I WIPs and informative public comments on this issue. The final TMDL places much greater emphasis on jurisdictions' final Phase I WIPs and less emphasis on backstops in deriving the loading allocations for all sectors. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for

developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0288.1.001.019

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

H. The TMDL does not acknowledge and accept Virginia's proposal to revise the chlorophyll standards and improve the modeling framework

Appendix 2 of Virginia's WIP contains a Draft James River Chlorophyll-a study plan. VAMWA concurs with and supports the need for the stated tasks. Successful completion of this study plan is considered essential to address the stated deficiencies of the standard and the associated modeling framework that are referenced in these comments. EPA has ignored the importance or implications of this study in the Chesapeake Bay TMDL. The existing allocations listed in the EPA TMDL for the James River based on chlorophyll-a (23.48 mpy TN, and 2.340 mpy TP) should be replaced with allocations consistent with Tributary Strategies. EPA's TMDL should include the chlorophyll-a study in the TMDL. However, EPA must clearly state the level of unreliability that exists with the present chlorophyll-a standard and the modeling results in the TMDL document.

Response

Please see reponse to comment # 0293.1.001.017

Comment ID 0293.1.001.004

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

VAMSA appreciates and supports the more flexible approach evident in the WIP as to Urban Stormwater, including crediting non-structural BMPs such as urban nutrient management, fertilizer restrictions, restrictions on improper waste disposal, street sweeping, and expanded trading program, all of which are listed at pages 78-79. Nevertheless, VAMSA has similar concerns with the WIP regarding the overall level of effort and associated costs.

From a local governmental perspective, it is imperative that the final TMDL and WIP retain flexibility for reasonable decision-making and implementation approaches and mechanisms at the local level that take into account cost considerations, reasonableness of rates for taxes/fees to implement the TMDL, and other relevant considerations.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0293.1.001.006

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA's Decision to Reject Virginia's Expanded Trading Option Is Unreasonable

Virginia's WIP includes provisions for expansion of its existing nutrient trading program to include agriculture, urban stormwater, and other sectors. In addition, Virginia's Draft WIP (unlike EPA's Draft TMDL) does not include mandatory retrofits/restoration of impervious area. Taken together, these two aspects of Virginia's plan would give affected parties the flexibility to incorporate cost effectiveness into management decisions. Unfortunately, EPA has largely ignored cost considerations in developing the TMDL. In fact, EPA has acknowledged in recent public meetings that the TMDL does not consider affordability or cost-effectiveness. Unlike EPA, local governments (including MS4 owners) have a responsibility to their citizens to seek cost-effective solutions. By ignoring cost, EPA's disapproval of Virginia's WIP essentially conflicts with the public interest in efficient and affordable regulations. EPA's acceptance of Virginia's intent to consider trading program expansion would help address this major shortcoming of the TMDL, though attainability of the TMDL remains a major question.

Response

Thank you for your comment. EPA is aware that meeting TMDL allocations will involve local governments, which already manage a significant workload. EPA is working to identify means of providing technical support to local governments to reduce the burden of planning for the TMDL and implementing measures associated with the TMDL. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange as long as the appropriate accountability exists. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0300.1.001.011

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

According to table 8-4 on page 8-6 of the draft TMDL, the Virginia WIP fails to meet the total N allocation by 16% and the P allocation by 22% for the James River. However, the Virginia WIP does meet the 60% target reduction by 2017. VDOT supports the Virginia WIP's proposal to evaluate the chlorophyll standard and then re-assess what, if any, actions may be necessary beginning in 2017 to meet the final target allocation. This approach is supported by studies

that have documented that the James River has less impact on the water quality of the main stem of the Chesapeake Bay than other rivers in the Bay watershed. Again, VDOT supports the proposed Virginia WIP approach to complete a "chlorophyll standards review and amend standards if necessary prior to the scheduled revision of the TMDL in 2017".

Response

Please see response to comment # 0293.1.001.017

Comment ID 0303.1.001.006

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

We strongly support the WIP with regard to its wastewater elements at pages 11-12 (Source Sector Strategy for Wastewater), at pages 14-17 (James River), and pages 38-50 (Section 5: Wastewater), which are consistent with the Virginia Regulations.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0305-cp.001.001

Author Name: Woodhouse Doug

Organization: Virginia American Water (VAW)

It is the position of Virginia American Water (VAW) that it is best to incorporate the recommendations of the Watershed Implementation Plan (WIP).

Response

See response to Comment No. 0228.1.001.002

Comment ID 0316.001.003

Author Name: Bulova Sharon

Organization: County of Fairfax, Virginia

A second source sector targeted in both the Draft WIP and the Draft TMDL is urban and suburban stormwater. Stormwater runoff from existing development is regulated through municipal separate storm sewer system (MS4) permits. Fairfax County holds a Phase 1 MS4 permit. While the Draft WIP lacks clarity on what the exact requirements would be for urban and suburban stormwater, EPA's Draft TMDL defines an aggressive backstop allocation.

It is not at all clear how, or even if, these stringent standards can be met using current stormwater management practices, especially given that most soils in urban areas are highly compacted and will not support infiltration practices. We have seen several estimates for implementation of retrofits for existing impervious cover. One estimated a cost of an additional \$90 million per year, while more detailed analyses have indicated the costs to be more in the range of \$250 to well over \$300 million per year, which is similar to an EPA estimate for urban retrofits. It is important to understand that, using the \$250 million estimate, the tax rate increase an average homeowner will see is over 10%, or more than \$600/year, none of which includes operations. This also does not include costs associated with operating and maintaining all of the new stormwater management facilities that will be required.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0330.1.001.010

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

The City encourages the EPA to work with the Commonwealth in perfecting its Watershed Improvement Plans (WIP) and in doing so, to exercise flexibility and consider the most cost effective means of improving water quality.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0341.1.001.005

Author Name: Anderson David

Organization: Virginia Fountainhead Alliance

- The development community bears a disproportionate burden under the draft WIP. Urban/suburban stormwater accounts for 8.7% of the flow of nitrogen and 13.7% of the flow of phosphorus into the Bay. Under the WIP submitted to EPA, urban/suburban stormwater nitrogen flows are to be reduced by 43% and phosphorus flows reduced by 68.3%. By comparison, agriculture, which accounts for 37.0% and 45.5% of nitrogen and phosphorus flow, respectively, into

the Bay is expected to reduce flows of nitrogen and phosphorus by 25% and 30% respectively, while wastewater, responsible 30.4% and 25.1% of nitrogen and phosphorus flow, respectively, is expected to increase flows of nitrogen and phosphorus into the Bay. These are not the allocations that were recommended by the Stakeholders Advisory Group (SAG) and we do not believe that they should be included in the WIP.

- The WIP contains the goal that "allocations for newly developed land will be set at a level that results in no increase above 2025 average nutrient loads per acre from previous uses; unless offsets are obtained in the event on-site controls will not fully achieve allowable loads." This goal will likely result in a phosphorus standard lower than the one proposed by the Kaine Administration in 2009 and possibly even lower standards for individual tributaries. Nitrogen standards are likely to be equally stringent. Such standards are likely to be economically unfeasible and, being based on modeling that is flawed, also likely to be unnecessary.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0351.001.002

Author Name: Wenyer G.

Organization:

We also feel this issue needs to be left at the state level to work with the farming community and all involved.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0367-cp.001.002

Author Name: Forget Karen

Organization: Lynnhaven River NOW

A TMDL is only as strong as its implementation plan. Without a strong implementation effort, it is fundamentally an academic process and a waste of time and taxpayer money. The Watershed Implementation Plan that Virginia has presented is basically "business as usual". It proposes that the state continue to do things exactly as they have been done in the past with a very low priority being given to water quality improvements. This has not worked and it will not work now. To continue business as usual will produce the same results we have now---thousands of miles of impaired waterways throughout the state and a very sick Chesapeake Bay.

We have had success with the TMDL process for bacteria reduction in the Lynnhaven River in Virginia Beach because

the implementation of the bacteria TMDL and cleaning up the river was made a highest priority by the city and a real commitment of funds, attention and collaborative effort has been made to reach that goal. I expect no less of a commitment from the state to clean up all of our waterways and the Chesapeake Bay. It must be a highest priority and a real commitment of funds, attention and collaborative effort needs to be made if the goals established by the Chesapeake Bay TMDL are going to be met.

While some progress has been made in reducing pollution from agriculture and wastewater treatment plants, runoff from stormwater in urban and suburban areas has continued to rise and, without a significant change, will continue to rise further. Progress has been made on reducing pollution from wastewater treatment facilities because funds have been allocated for upgrades to old plants and this work has been prioritized. The same commitment could work for urban and suburban stormwater. However, the proposed Watershed Implementation Plan lacks any specifics on how to achieve these reductions. Real reductions from this area will not occur without robust requirements on both redevelopment and greenfield development as well as funding to assist local governments with stormwater system upgrades.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0367-cp.001.005

Author Name: Forget Karen

Organization: Lynnhaven River NOW

The waterways of the state belong to the people of Virginia. And there is no more fundamental responsibility of our state government and our federal government than the restoration and protection of our waterways. Clean water is critical to our health, our economy and our quality of life. We all have a responsibility for clean water. The citizens will do their part; the municipal governments will do their part. Will the state do its part?

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0370-cp.001.008

Author Name: Page T.

Organization:

o The draft WIP as worded has the unintended consequence of requiring reductions in phosphorus that exceed the unreasonable levels required under the suspended regulations previously adopted by the Kaine Administration. The

WIP should be revised to provide for a much more reasonable phosphorus standard for new development that is close to the current standard in place.

o The 20% pollutant reduction requirement for redevelopment projects is excessive. It will encourage sprawl by unnecessarily increasing the cost of urban redevelopment projects.

- Virginia should quickly file suit against the EPA in early 2011 to block or delay implementation of the draft TMDL and the effective date of Virginia's WIP if EPA fails to delay adoption of the TMDL or fails to allow for a WIP that addresses Virginia's concerns and those outlined in your comments.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0376.1.001.001

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

VMA believes that Virginia's September 3, 2010 Watershed Implementation Plan ("WIP") provides a sensible, well-reasoned and effective strategy for addressing Virginia's contribution to listed impairments within the Chesapeake Bay watershed. Although the Total Suspended Solids ("TSS") allocations for industrial point sources will need to be revised to address site-specific conditions, once those corrections are made VMA supports the WIP.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0376.1.001.004

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

However, other aspects of the TMDL would disrupt the history of reductions, investment, science, and collaboration here in Virginia. EPA's proposal would upset settled and supportable expectations about the reductions that are needed to achieve our shared goal of a healthy Bay. VMA believes that Virginia's WIP provides a more equitable and technically defensible means of achieving this goal.

Response

See response to Comment No. 0228.1.001.002

Comment ID 0376.1.001.005

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

Virginia's WIP was developed through a collaborative process, and we support the TN and TP allocations set forth in the WIP as originally submitted by the Virginia Department of Environmental Quality ("DEQ") on September 3. We believe DEQ erred in its TSS allocations, which were predicated on an across-the-board TSS concentration target of 30 mg/l for industrial and municipal dischargers. However, we understand that DEQ plans to correct this error to reflect appropriate and defensible industrial TSS allocations in the next iteration of the WIP. The revised version will adjust the industrial TSS allocations based on site-specific constraints at industrial facilities as substantiated in individual industrial VPDES permit proceedings. We support the process and the product that the DEQ is working to develop.

When assembling the WIP, Virginia's Secretary of Natural Resources convened a stakeholder advisory group ("SAG"), consisting of representatives of all affected stakeholders. The SAG reviewed and provided feedback on the model inputs, outputs and the feasibility of achieving a host of practices across Virginia's Bay watershed. Members reviewed and advised on sector pollutant load reductions and the sector allocations that would be used to meet the interim and final goals established by EPA (for nitrogen and phosphorus, but not for TSS). Through this collaborative process, Virginia obtained input from affected sources, including valuable technical expertise on the workings of the model and the impacts and achievability of various allocation proposals.

The WIP drew upon two core aspects of Virginia's regulatory program: (1) the WGP, which serves as a vehicle for implementing the regulatory nutrient allocations assigned to significant industrial and municipal dischargers; and (2) the Exchange, which facilitates implementation of these allocations by and among facilities in the most cost-effective manner.

Response

See response to Comment No. 0228.1.001.002

Comment ID 0407.1.001.001

Author Name: Krouskop Dirk

Organization: MeadWestvaco Corporation (MWV)

MWV's phosphorus and nitrogen discharges are now in compliance with its Tributary Strategy limits set by Virginia in 2006 as part of Virginia's efforts to reduce nutrient discharges to the Chesapeake Bay. The Covington operation was the first facility in Virginia to accept its discharge permit limits for both phosphorus and nitrogen, four years in advance

of the required compliance date of January 2011.

The Virginia Watershed Implementation Plan) WIP was developed through a collaborative process, and we support the point source nitrogen and phosphorus allocations found in the WIP as originally submitted to EPA by DEQ on September 3, 2010. MWV has been an active participant in the Bay restoration efforts and believes these nutrient allocations are appropriate for industrial dischargers due to the unique characteristics of industrial wastewater discharges from each site and process.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0407.1.001.006

Author Name: Krouskop Dirk

Organization: MeadWestvaco Corporation (MWV)

In conclusion, with the exception of the TSS allocations for industrial point sources, MWV supports Virginia's September 3,2010 WIP which provides a sensible, well-reasoned and effective strategy for addressing Virginia's contribution to Chesapeake Bay impairment.

Response

See response to Comment No. 0067.1.001.009 and 0288.1.001.027

Comment ID 0413.1.001.003

Author Name: Champion Traylor

Organization: Georgia-Pacific LLC (GP)

Support for Virginia's Watershed Implementation Plan and the James River Approach

We support the approach that the VA DEQ proposes in its Watershed Implementation Plan (WIP) for the James River due to its unique qualities and chlorophyll criteria. This approach proposed in the WIP uses, as a foundation, the successful point and non point source control plans already developed by localities and municipalities in the basin. The significant reduction of nutrient allocations proposed by EPA for the James River is unfounded and fails to recognize or consider the significant progress to-date and future nutrient reductions plans that have been made in good faith in the basin. We believe the adaptive management approach proposed by VA DEQ for the James River to achieve the 2017 goals is appropriate and that EPA should approve this portion of VA DEQ's WIP as originally submitted. To utilize the allocations that EPA has proposed is contrary to the pursuit and use of sound science upon which EPA professes to

base its approach to protecting the environment.

Response

See response to Comment No. 0293.1.001.017.

Comment ID 0416.1.001.004

Author Name: Paulson Eric

Organization: Virginia State Dairymen's Association (VSDA)

Virginia has charted a positive course through the use of incentive based and flexible BMP's that have had a positive impact on the national treasure that is the Chesapeake Bay. We urge EPA to reconsider its current approach and work with Virginia to fully fund these cost share and technical assistance programs. This common sense approach will allow agriculture to remain environmental stewards while also remaining an important industry in Virginia. The TMDL approach is too far removed from local land use planning and decision making to be flexible and feasible. If EPA will work with Virginia under current guidelines and programs, we can achieve our shared goal while still supporting farmers around the state. Thank you for the opportunity to comment and please feel free to contact me with any questions or comments you may have.

Response

EPA shares in your point that environmental interests and agricultural interests can co-exist. Please see response to comment # 0067.1.001.009

Comment ID 0431.1.001.004

Author Name: Tolbert James

Organization: City of Charlottesville, Virginia

Urban retrofits are an appropriate, but costly stormwater treatment strategy. Urban retrofits should be balanced with other aggressive stormwater treatment strategies focused on agricultural land. Stormwater BMPs on agriculture land are much more cost effective per pound of nutrient removed than urban retrofit BMPs. The current Bay TMDL and Virginia WIP require too much urban retrofits and too little agricultural BMPs.

Response

Through the state WIPs, EPA has deferred to the states to make the initial assessment on which sectors to seek what level of controls. While the draft WIPs were largely deficient, EPA finds the final WIPs are much improved. Therefore, in the final TMDL,

EPA has chosen to reduce or remove the backstop allocations. As a result the allocations in the final TMDL are much more aligned with the loadings in the state WIPs. EPA's final decisions on the WIPs and backstop allocations can be found in section 8.

Regarding implementation strategies that should be considered, see response to Comment No. 0044.1.001.004.

Comment ID 0434.1.001.008

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

I. The Virginia WIP Appropriately Builds Upon the Significant Reductions Achieved to Date by Agribusiness and Other Stakeholders to Achieve Bay Water Quality Goals.

The VA Farm Bureau's members (farmers, foresters, etc.) are committed to environmental stewardship. Clean water and good soil are fundamental to our success. We have been doing our part, and will continue to do so in order to help create a healthy Chesapeake Bay and local waters.

As a result of this commitment, agriculture has met 52% of the reduction goals established in Virginia's Tributary Strategies for Nitrogen and 50% for Phosphorus and Sediment—all through a voluntary, incentive based program in Virginia. According to the Virginia Department of Forestry, 83% of logging jobs already use the proper combination of best management practices.

Virginia's Chesapeake Bay program has provided the impetus for VA Farm Bureau members to implement measures to address nitrogen, phosphorus and sediment discharges. Virginia's agricultural community has responded to these incentives.

o Virginia has put over \$80 million into Agricultural Best Management Practice (Ag BMP) Cost-Share program since 2006. Farmers have matched this spending with \$0.60 of every dollar, and are lined up at the door to do more. Every year, there are more farmers interested in participating than there are funds to be distributed.

o Even without cost-share funding, agriculture is taking action. Virginia farmers fence cattle from streams, practice conservation tillage, test soils before applying fertilizer, and install buffers along waterways -- without federal or state funds -- and without being "counted" by EPA.

o Virginia has enacted the most far-reaching "bad actor" statute in the watershed to address agricultural contamination. Its "Agricultural Stewardship Act" was enacted in 1996 and became fully effective in 1997. See Va. Code §§ 3.2-400 et seq. Between April 1, 2009 and March 31, 2010, 100 inquiries were made through this program, resulting in 51 investigations and 21 cases that prompted needed improvements in agricultural operations.

The cooperative program that Virginia has established is working. Progress is being made. EPA's intervention at this point in the process will only cause friction, finger-pointing and litigation. Instead of progress we will have gridlock.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0434.1.001.019

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

VIII. Conclusion

The VA Farm Bureau is committed to doing its part to ensure the restoration of the Chesapeake Bay. Virginia's September 3, 2010 WIP provides a sensible approach for achieving the nutrient and sediment reduction goals set by EPA. The TMDL proposed by EPA, however, lacks legal and technical support, and undermines the progress that has been made by the agricultural community through the regulatory and non-regulatory programs already established in Virginia. Building upon these programs will lead to greater reductions by the agricultural community. Additionally, allowing opportunities for trading and other incentive-based programs will ensure a continued partnership to achieve reductions.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0435.1.001.013

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Comments Regarding the Commonwealth of Virginia Draft Chesapeake Bay TMDL Phase I Watershed Implementation Plan

The City of Norfolk (City) appreciates the opportunity to review the Virginia Draft Phase I Watershed Implementation Plan (WIP), released in September 2010, and submit comments. As a coastal community, receiving direct benefit of a cleaner Chesapeake Bay, the City has always been a leader in storm water management in the Commonwealth of Virginia and supports the goals of the Chesapeake Bay (Bay) Total Maximum Daily Load (TMDL) and WIP process.

The City recognizes Virginia's efforts to incorporate flexibility and cost effectiveness into the development of the Draft WIP. We support a WIP that ensures adaptability and fairness within and between source sectors in achieving pollutant loading reductions within the Commonwealth.

The City has reviewed both the Draft TMDL developed by the Environmental Protection Agency (EPA) and the Draft WIP developed in conjunction with and response to the TDML. The City has reservations about the WIP and the potential implications it may mean to our residents. While we have also commented through our membership in the Hampton Roads Planning District Commission and Virginia Municipal Storm Water Association, we wish to submit additional comments of particular concern for the City.

The City understands the pressures and influence that the EPA has placed on the WIP development process; however, we believe a more fair and balanced approach must be taken to address contributions of each watershed to the pollutant loads. Because the James River discharges at the mouth of the Bay, it contributes the least amount of pollutants to the Bay. We find that implementing the Draft WIP as proposed would place substantial financial burdens on City residents with minimal improvement to water quality. Therefore, outlined below are comments reflecting specific concerns and recommendations associated with the Draft WIP.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0435.1.001.017

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Reasonable Assurance

The City encourages Virginia to respond to the EPA backstop allocations by revising its Draft WIP to include the additional commitments needed demonstrate to the EPA with reasonable assurance that the Commonwealth can achieve the Draft WIP allocations for the agriculture and onsite septic systems sectors. Such a demonstration would remove the backstop allocations and allow Virginia to distribute a portion of the allocations now assigned to the agriculture sectors to the urban runoff and point source sectors.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0435.1.001.018

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Realign Allocations

Should the EPA backstop pollutant allocations not come into play, the City encourages Virginia to assign a significant portion of the additional allocations of nutrients and sediment in the James River basin to the urban runoff sector. However, as explained above, the allocations in the Draft WIP placed too much reliance on credits to offset the consequences of the small allocations to the urban runoff sector and did not reflect a cost-effective and equitable distribution among the sectors.

The City would like to take this time to thank you for the opportunity to submit these comments associated with the Draft WIP. We recognize that the state is attempting to develop the WIP to allow for flexibility and cost effectiveness throughout the source sectors. We feel that the state is making great strides to improve water quality in the Bay watershed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0435.1.001.021

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

First, the Hampton Roads Localities encourage Virginia to respond to EPA's backstop allocations by revising its WIP to include the additional commitments needed to demonstrate to EPA that the Commonwealth can achieve the draft WIP allocations for the agriculture and onsite septic systems sectors. Such a demonstration would remove the backstop allocations and allow Virginia to distribute a portion of the allocations now assigned to the agriculture sectors to the urban runoff and point source sectors. Should the backstop allocations be removed, it is important that Virginia assign a significant portion of the additional allocations to the urban runoff sector. The Hampton Roads Localities recognize the need to assign some portion of the additional allocations to the point source sector to accommodate long-term growth and to generate credits. However, as explained above, we believe the allocations in the WIP placed too much reliance on credits to offset the consequences of the small allocations to the urban runoff sector and did not reflect a cost-effective and equitable distribution among the two sectors.

As we explain in our comments on the TMDL, time is a more critical factor for the urban runoff sector than it is for any other source sector receiving allocations in the TMDL. This is because the cost of retrofitting existing development is directly related to the Localities' ability to impose retrofit requirements in land use approvals for re-development rather than having to acquire easements for the retrofits and installing the retrofits independent of re-development. The Localities expect that they will be receiving new MS4 permits within the next two years and that these permits will contain conditions based on the Bay TMDLs. Therefore, it is critical that the State include the largest urban runoff sector allocations possible in the final WIP. This will afford the Localities' a greater opportunity to comply with their permits cost-effectively through retrofits required at the time of redevelopment.

Second, we encourage the State to emphasize in its final WIP the critical importance of federal and state grant funding

to assist the localities in achieving the load reductions called for in the final TMDL. As is evident from the cost estimates summarized above, local governments simply do not have the financial resources to implement their responsibilities under the TMDL. This is particularly true in the case of the urban runoff sector where the cost-per-pound of nutrients and sediment removed is far greater than any other source sector and where grant funding for storm water programs has been non-existent. In the absence of significant federal and state grant funding assistance, the urban runoff sector allocations are little more than a recipe for failure and will serve only to expose MS4s to federal enforcement. To protect MS4s, we also urge the State to make clear in its final WIP that the 2025 compliance deadline must be tied to the availability of significant federal and state grant funding for the urban runoff sector.

Finally, we encourage Virginia to take full advantage of the existing model capabilities to credit existing management practices that the State has not previously catalogued or reported to EPA. We also urge the State to formally request that EPA directly account for nutrient reductions attributable to filter feeders. It is apparent that EPA has made very little effort in the draft TMDL to incorporate additional, more cost-effective opportunities to achieve the basin-wide allocations. Crediting load reductions attributable to filter feeders such as oysters and menhaden and adopting an aggressive, targeted approach to reducing nitrogen loads from air deposition would reduce the need for other sectors to make more expensive nutrient reductions. Other cost-effective opportunities such as a federal commitment to funding the cost of installing wide-spread forested buffers should also be given serious consideration. Currently, neither the TMDL nor Virginia's WIP addresses any of these opportunities in a meaningful way. We urge the State to press EPA to remedy this deficiency when it establishes the final TMDL.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0449.1.001.002

Author Name: Farry K.

Organization: Excalibur Farms

As a second-generation farmer, I also have major concerns about an emphasis on specific "solutions" rather than results. Fencing all streambeds to totally exclude livestock is an example of a specific solution. On my family's farm, we have nine creeks which join to form Whetstone Run, a Rapidan River tributary. All but two of these creeks begin on our farm. We have over half of the farm in forest. The remainder (about 220 acres) is devoted to hay production and pasture for livestock (mostly sheep with a few brood cows). In our open land (about 220 acres), we have about 14,000 linear feet of streambed. Fencing this out (28,000 feet of fence at \$3/foot), adding the necessary number of stream crossings (about \$6000 each), burying 20,000 feet of water lines with power for heaters to supply waterers (about \$7/foot) could cost between \$250,000 and \$300,000. On-going maintenance of the streambed fencing would also be expensive: our streams flood frequently because we have allowed them to grow up with trees and brush per NRCS recommendations. We lost many miles of fence in a single flood in 1995, so this is not a theoretical concern.

In addition to this tremendous increase in expense, we would lose about 30-35 acres of pasture and hay acreage, so our farm income would be reduced. We could clear some forest to make up for the lost acreage, but that would in itself

add to the Bay pollution loads (according to your model).

We have already made a major investment in water quality-driven improvement. We stopped row-cropping years ago (sediment run-off from this hilly ground was significant). We converted from an all-cattle operation to mostly sheep. Sheep do not stand in creeks like cattle do. Sheep also are kinder to ground cover than cattle, so sediment runoff from a sheep operation is less than from a cattle operation. Working with the NRCS and CSWD, we have invested about \$100,000 in barnyard drainage, roof-water runoff control, animal walkways, fencing out buffer zones for our barnyard and woodlands, road drainage improvements, and a manure composter. We got on a state-approved nutrient management plan. Beyond the money invested, family members put in over 1000 hours of engineering, fencing, regulatory research, and construction management time to lower costs. Fortunately, grants and tax credits covered a portion of the work, but nowhere near all. We were frustrated by the lack of data (no one tested the water before or after all this work); however, we made the investment because we believed that it would be necessary to continue farming in the face of increasing environmental concerns and ultimately regulations. It will take us years to pay for this, but we did have reason to believe that these BMPs were going to make us better neighbors and citizens.

The one thing that we could do to contribute more is get rid of the last few cows and concentrate entirely on sheep. Unfortunately, we face poorly-conceived “one-approach-fits-all-farms” regulations in these WIPs such as this fencing mandate that could cost us up to 3 times what we have voluntarily invested already. Worse, this investment would not contribute anything to the Bay cleanup because sheep don’t like getting their feet wet anyway. We are straining to pay for what we have done for the Bay already--farm input prices have soared while farm product prices have not, thanks to imports from places where water quality and feed sources are not a concern.

Response

First, thank you for your efforts to improve the environment. Agreed that the solutions need to be ‘home grown’ For this reason, EPA has sought to have the plan developed at the state level with dialogue among the many stakeholder. Furthermore, EPA is looking for the plan to be driven down to a maller scale (like county) in 2011 in phase 2 of the planning. So EPA would hope that as these plans continue to evolve that suggestions like the ones in your comment are discussed.

Comment ID 0465.1.001.005

Author Name: Marks Martha

Organization: NAIOP (Commercial Real Estate Development Association) Northern Virginia Chapter

The proposed TMDL includes components which address existing development and efforts that can be undertake to mitigate their impact on the Bay. In Virginia, there simply is no legal authority to address some of the urban/suburban retrofits proposed in the EPA draft TMDL. Some of the backstops that would be imposed on existing properties, including state and local highways simply cannot be implemented - such as removing existing parking lots, installing stormwater controls on existing sites or requiring that rain gardens be added retroactively. Virginia has no authority to require existing property owners to make these changes and to suffer the expenses for doing so.

In addition, such controls are more expensive and are also less successful in pollutant reductions per dollar spent.

Wastewater treatment plant upgrades (which developers and citizens pay for through service charges) or many agricultural best management practices contained in the Virginia draft WIP are much more effective expenditures of scarce resources. Some of the proposals in the Virginia WIP are based on what is allowable under state law. This would include the proposed Agricultural BMPs which could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

See response to Comment No. 0312-cp.001.004

Comment ID 0472.1.001.002

Author Name: Fults Brent

Organization: Chesapeake Bay Nutrient Land Trust, LLC

WIP Expansion of the Nutrient Exchange Program

The Virginia WIP fails to fully acknowledge or take advantage of existing authority for a private market based Offset program. Instead, the Virginia WIP calls for an expansion of the Nutrient Exchange Program without providing details for how that expansion will occur. Based on the limited information in the WIP, it appears that Virginia plans on a system that would rely heavily on excess capacity at sewage treatment plants being traded with multiple other sources. Point source nutrient reductions are not evaluated in the same manner as those resulting from permanent land use alterations and both the science and trading potential appear incompatible. Such a system would be a municipality driven, government subsidized trading system that does not promote land use changes but offers a limited approach using treatment systems reliant on technology to remove the pollutants. Offsets offer a 100% nutrient reduction, whereas a trading program under current water quality and stormwater programs allows a maximum 65% or 75% treatment efficiency for runoff.

The current state of wetland and stream banking in Virginia versus Maryland bears out this argument against a municipality driven trading system. Maryland has a very limited number of private wetland banks yet in Virginia, where governmental establishment and control of wetland and stream mitigation banks for commercial purposes is prohibited, the private market has flourished. CBNLT's experience in the Virginia nutrient market is also demonstrative of the negative impact that local government involvement in trading can have on private markets.

Virginia's WIP suggests that a legislatively authorized study will be pursued to determine the appropriate expansion of the Nutrient Exchange. The study should (i) include as a requirement the protection and promotion of private market based trading systems, (ii) acknowledge that trading between point sources and source such as stormwater that require permanent reductions is limited in potential due to concerns that point sources will not want to permanently give up their allocation.

Cost of implementation

The Virginia WIP anticipates significant federal funding, yet such funding seems unlikely. At the same time the Virginia WIP makes no mention of the cost effectiveness of a private trading program. As noted above, Offsets created by CBNLT are created at no expense to either state or federal agencies. Given these hard economic times, private solutions rather than more governmental subsidies should be vigorously pursued, yet the Virginia WIP fails to do so.

Missed opportunities for true reductions

The Virginia WIP should include an assessment of current stormwater BMP effectiveness with a special emphasis on whether BMPs have been installed as designed, whether BMPs are being adequately maintained, whether BMPs are actually functioning, and even where the BMP or manufactured devices are actually located. There is an over-reliance on expensive (in real dollars and per pound of reduction) on-site technological solutions with questionable monitoring, maintenance and reliability and with long term replacement needs and costs (meaning replacement may not occur). Many in ground technological systems such as Filterra and Contech systems require regular and long term maintenance and eventual replacement to maintain full nutrient removal capacity. It is questionable whether it is possible to document and ensure that these activities occur as needed. Many question the actual efficiency of these systems and the practicality of long term maintenance. These factors lead to serious questions as to whether expected nutrient reductions are actually occurring. The result is that we could be counting reductions that aren't actually taking place.

The Virginia WIP should provide for increased enforcement with Offsets as a compliance tool

The Virginia WIP should include more emphasis on enforcement of existing requirements. CBNLT is aware of a variety of compliance issues for which Offsets could be part of a compliance package. These examples range from development activities with no water quality consideration in their SWPPP to improperly constructed nutrient management facilities. Offsets are valuable for making up for the temporal loss of nutrients and for longer term solutions to offending site nutrient management deficiencies. Offsets could be made a clear item in the enforcement tool box, particularly with the priority given to stormwater in EPA's National Enforcement Initiatives and its Chesapeake Bay Compliance and Enforcement Strategy.

Local stream impacts

Section 7.2 of the Virginia WIP creates an inappropriate impression that the use of Offsets can have a negative impact on local stream water quality. Virginia state statute (Va Code § 10.1-603.8:1) authorizing nonpoint nutrient Offsets for stormwater permitting already requires an examination of local stream impacts as does guidance developed by DCR. In addition, the Virginia WIP should also note that nutrients at a development site that are accounted for through an Offset rather than an on-site control have very little to no impact on most receiving streams. The true impact to local streams is from water quantity rather than nutrients. Under Virginia's program water quantity must be addressed on-site and, except for some local government programs, cannot be managed off-site.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0475.1.001.005

Author Name: Frazier Katie

Organization: Virginia Agribusiness Council

D) Virginia's overall approach in the Draft WIP

In Virginia's September 3, 2010 cover letter to EPA, Secretary Domenech highlights the state's ongoing efforts to improve water quality in the Bay over the past two decades, recognized the severe economic conditions currently faced by Virginians, and the high cost of implementation of the draft WIP. He further promotes a system built upon flexibility and cost-effectiveness to meet these goals. We concur.

Our industry supports Virginia's approach in the Draft WIP to utilize adaptive management, nutrient trading, and flexibility in meeting goals. Implementing the WIP and the Bay TMDL will be costly. In order to best balance the needs of a growing economy with water quality, we support a) adequate and reliable cost-share and technical assistance for agribusinesses, b) providing flexibility and certainty, c) balancing water quality reductions with economic impacts to industries, d) a trading program that allows for all economic sectors to participate, and e) utilizing adaptive management based upon economic conditions, future advancements in practices and technologies, and true water quality data. Virginia's draft WIP sets the course for such actions.

In general, if EPA is requesting additional detail be provided by the Commonwealth on current programs, we encourage the state to work with EPA to determine the types of information necessary to meet their expectations. Adding additional explanation of current programs will clearly prove that Virginia, through statute, regulations, inspections, and voluntary programs, has taken great strides in meeting water quality goals, and through full utilization of these programs, can make even more progress in the decade to come.

E) Agriculture Sector Section of the Virginia Draft WIP

Fully Utilizing Existing Programs, Adding Details, and Increasing Staff

As already stated, state officials should continue working with EPA staff to add details regarding current permitting, regulatory, inspection, and voluntary programs to the draft WIP. Further, we support utilizing current programs, statutes, and regulations to their fullest extent, explaining areas where additional staffing, resources, and funding are necessary, and working to address these shortfalls over time. We urge the state to continue efforts to get full credit for all actions taken resulting from regulatory or permitted actions, as specified in the SB 346 Study Report (November, 2010).

If provided with adequate funding and staffing, the Agricultural Stewardship Act (ASA) can be utilized to ensure compliance with water quality laws and serve as an enforcement tool that EPA is demanding. We encourage the State to include information on expanded staffing and utilization of the ASA program in the re-draft of the WIP.

Ag BMP Cost-Share Funding Is Critical

We continue to support adequate and dedicated funding for cost-share assistance and technical assistance provided through the Virginia Agriculture Best Management Practices Cost-Share program and Soil and Water Conservation Districts. The draft WIP should be amended to reflect a formula utilized to determine Cost-Share and Technical

Assistance funding needs, based upon state, federal, and farmer share of costs. We are gravely concerned about including unrealistic BMP implementation goals without any guarantee that government cost-share and technical assistance will be available in the future. Just as the state and farmers will be held to an expectation by the federal government to meet funding goals, so should the federal government. If TMDL goals are not met due to lack of available and adequate funding, the industry should not be left to deal with consequences.

Accounting of Voluntary Best Management Practices

We applaud the state's inclusion of plans to address the inherent problems with the current system of tracking and verifying agricultural best management practices (Ag BMPs) within the Chesapeake Bay Model. We continue to work in earnest with state officials to implement the terms of SB 346 (Hanger) which will set the state on a course towards tracking and accounting for voluntary best management practice implementation. As envisioned in the WIP, it is critical that regulatory practices already mandated, such as those associated with the Poultry Waste Management Act, biosolids regulations, the Agricultural Stewardship Act compliance, and the Chesapeake Bay Preservation Act, for example, be accounted for fully within the Bay Model. Adequate staffing will be crucial to begin implementing this critical program as a means to account for the significant conservation practices already implemented by agriculture already.

Resource Management Plan (Conservation Plan) Approach

As advocated by industry representatives during the WIP development process, utilizing Resource Management Plans (Conservation Plans) will achieve Bay improvements in an economically sensible, scientifically based manner. Specifically, a resource management plan should constitute a suite of Best Management Practices (BMPs) most appropriate for each farm. Each farming operation is unique with respect to its conservation needs. Each varies in its potential to affect water quality. A Resource Management Plan which addresses nutrient management, soil conservation, riparian management, and stream protection as needed, is the most effective means of determining the appropriate BMPs for any given farm. We will continue to work with state officials to further develop this program to ensure that it is effectively and fairly utilized by the State in meeting Bay goals.

Other Specific Questions and Concerns on Agriculture Section

- Gap Analysis (page 57) - It is not clear which table is referenced in the first paragraph; this should be clarified or deleted.
- Nutrient Management Plans (page 62) - There are two dates listed as goals; 2020 for 95% implementation and 2017 for increases in NMP plan writers. Shouldn't these be consistent? There should be further discussion on phase-in plans with impacted stakeholders.
- Conservation Tillage and Soil Conservation Plans (pages 62-63) - Industry representatives have raised concerns regarding the equitability of focusing conservation efforts on large farms initially (phase-in proposals), and as such, further discussions with impacted stakeholders must occur.
- Livestock Stream Exclusion (page 63) - The basis for expectations for farms with a certain number of cows needs further discussion with impacted stakeholders. The section should also be amended to reflect the need for more flexible standards in fencing types, buffer restrictions, and grazing rules.
- Container Nursery and Greenhouse Runoff and Leachate Collection and Reuse (page 65) - This specific practice is not currently established as a BMP by DCR, or to our knowledge, credited in the Bay model. Until discussions with impacted industries occur and such a BMP is created, it should not be included in the WIP. The specifics of this practice have not been fully vetted with the impacted industry and there remain many questions from industry, particularly landlocked, small, and retail/distribution operations as to adoption, affordability, and feasibility of this practice.
- Contingencies (page 66) - Further discussion with impacted stakeholders regarding contingency plans must occur.

The provisions regarding potential mandates of BMPs for land-use taxation has never been vetted with agribusiness industry representatives.

F) Urban/Suburban Sector Section of the Virginia Draft WIP (Turfgrass industry specific)

Urban Nutrient Management

The draft WIP envisions greater restrictions on nutrients in turf and lawn care fertilizer products. Members of the fertilizer, lawn care, golf, and green industries have identified that certain provisions of the draft WIP may be feasible to implement provided they are approached in a cost-effective manner for impacted industries. Below, we outline amendments and additions to the draft WIP we suggest to specific sections in order to achieve this goal.

Stormwater BMP Cost-Share Program (page 78) - We applaud the state's inclusion of plans to create a stormwater BMP Cost-Share Program and encourage including items such as urban nutrient management, proper fertilizer applications, and incentives for utilizing more efficient nutrient products in this program. In the current economic conditions, without adequate cost-share funding goals, such as Nutrient Management for golf courses, may be unattainable.

Use of Voluntary Water Quality Agreements with DCR (page 78) - The industry appreciates recognition of this important voluntary program in collecting data from willing participants within the lawn care industry. We urge the state to also expand the funding and resources provided to this program so that additional companies may participate. There is a willingness from the industry to expand the use of this program; however it is currently limited due to resources and staffing.

Nutrient Management Plans on Golf Courses (page 78) - Adequate time must be given to allow for plan writers to be certified in the Urban Nutrient Management program and for plans to be written. Further, cost-share assistance will be critical in helping some golf courses, both public and private, meet this goal.

Sales Restrictions on Do-It-Yourself Non-Agricultural Lawn and Turf fertilizers: Slow Release Nitrogen (page 78) - We encourage state officials to work with the industry in assessing this goal over the next several years, as technology, practices, and products are constantly changing in this area.

Sales Restrictions on Do-It-Yourself Non-Agricultural Lawn and Turf fertilizers: Time of Year Restrictions (page 78) - Due to climate and grass type differences across the Commonwealth, and the various nutrient needs based upon these differences, the industry urges the state to base any restrictions on no applications to frozen ground, as established in DCR's Nutrient Management Standards & Criteria.

Sales Restrictions on Do-It-Yourself Non-Agricultural Lawn and Turf fertilizers: Ban Phosphorus (page 79) - The wording of this section should be changed to reflect that it is actually a restriction on the phosphorus content of certain fertilizer products, not a ban on all use of the products in all situations. There are circumstances, recognized by the exemptions outlined in the draft WIP, where application of phosphorus may be necessary for home lawns and turfgrass. Further, the industry urges the state to also provide an exemption in the WIP for biosolids and products with naturally occurring phosphorus. This would parallel other states that have enacted similar restrictions on phosphorus use.

Ban on Nitrogen Containing Deicers (page 79) - If a ban on utilizing nitrogen containing deicers were to occur, adequate

time (several years) to allow for retailers with the product to clear their inventory must be allowed.

Proper Storage and Disposal of Non-Agricultural Fertilizers by Retailers (page 79) While a "good housekeeping" practice, it may be impractical and difficult to implement. In addition, the Bay Model does not give credit for this "practice" and as such, it should be removed from the WIP.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0517.1.001.002

Author Name: Miller Christopher

Organization: Piedmont Environmental Council

The Commonwealth of Virginia should be expected to provide detailed descriptions of how the programs that it identifies in the Water Quality Improvement Program will be implemented, including existing and planned policies. In particular, the EPA should require the Commonwealth of Virginia to identify needed legislative, regulatory, and revenue authority necessary to accomplish the goals agreed to in the WIP.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0519.1.001.001

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Generally speaking, the draft WIP should, but does not, clearly present:

- o Current baseline loading across all Virginia Chesapeake Bays basins;
- o Load reductions required for each of the Virginia Chesapeake Bay basins to achieve allocations;
- o Best Management Practice (BMP) Implementation levels or management actions required for all source sectors to achieve allocations by Virginia Chesapeake Bay basin;
- o Detail primary assumptions regarding management actions to be taken by source sector to achieve allocation load reductions;
- o Timeline of what management actions will/should be taken to achieve the estimated load reductions in first 7 years through 2015, within the next 3 years (through 2020), and the subsequent 5 years (through 2025);

- o Tracking and reporting system to track the status of implementation of management actions, or projections of load reductions due to implementation of management actions, or actual measurements/assessment of the water quality in the Bay and the contributing basins;
- o Provide a complete Appendix detailing all Virginia Chesapeake Bay Watershed Model segment characteristics;
- o Provide a complete Appendix identifying all Significant and Non-significant dischargers (Public and Private) along with all pertinent information;
- o Provide a complete Appendix identifying all individual Virginia Pollutant Elimination System (VPDES) permit holders for industrial stormwater dischargers along with all pertinent data.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0519.1.001.003

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Watershed and Sector Inequities

The draft Virginia WIP proposes no waste water treatment plant improvements beyond the current permitted requirements. This situation is vastly different than the other reduction requirements being placed on the remaining sectors. This lack of additional removal requirements on the wastewater sector is not cost-effective and it places a larger financial burden on the remaining source sectors. Not only has this lack of action towards the wastewater sector resulted in an inequity between the sectors, but additionally it has resulted in inequity in allocations between the watersheds. This is evident within the table provided below which depicts the projected delivered per capita wastewater load by watershed.

[Please see table on page 5 of the original letter (Docket ID EPA-R03-OW-2010-0736-0519)] [FN2]

Wastewater treatment plant upgrades are the most cost-effective method of removing nutrients on a cost-per-pound basis while providing a very high level of reasonable assurance.

Another inequity exists in that there are no reductions from estimated present loads for industrial VPDES permitted stormwater. The significance of this, besides the issue of equity, is that the Commonwealth of Virginia must deduct the industrial waste load allocation (WLAs) for facilities within the permitted Municipal Separate Storm Sewer System (MS4s) from the composite MS4 WLA. As a result, the differential MS4 load will be even higher since the estimated current Industrial stormwater loads are at much higher levels than the Everything, Everybody, Everywhere (E3) source sector allocations. WSM model assumptions are additionally called into questions as these industrial loads do not appear to match what the WSM loads per acre are, and are generally higher than the "no BMP loads" in the model.

[FN2] Allocations are based on 8/4 model run #4 corrected, personal email conversation, Russ Perkinson, VADCR, 09/13/2010 and U.S. Census Bureau, Population Division, 2009 Population Estimate, obtained from <http://www.census.gov/popest/files/COEST-2009-ALLDATA.csv> on 9/2010.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0519.1.001.004

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

As a further modeling issue with respect to the draft WIP, the combined sewer system (CSS) numbers submitted in the Virginia Department of Environmental Quality (VADEQ) watershed model input deck did not reflect any reduction associated with taking the stormwater component of CSS down to E3. Again, this impacts the MS4 WLA allocation negatively.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0519.1.001.007

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Reliance on Stormwater Retrofits

The over-reliance on stormwater retrofits suggested throughout the WIP is problematic for several reasons, specifically costs and physical limitations which prevent the BMP conversions. Additionally, modeling scenario decisions have further influenced how the E3 definitions are comparable on a source sector basis. Given the extreme pressure and apparent intended reliance on stormwater point source discharges (MS4s and construction activities); it is misleading to the public to exclude them from the No-Action Point Sources category. Instead, it appears that they are lumped in the No-Action Nonpoint Source Practices. These discharges should have been identified in the No-Action Point Sources and include due to the fact that BMPs have been, and continue to be, implemented for both urban and non-urban stormwater discharges.

It appears that there is an apple to oranges comparison between No-Action Point Sources and No-Action Nonpoint Source Practices. There is treatment on both urban practices as well as other practices. If it is assumed that there are

no practices on nonpoint sources, how can it be assumed that there are practices on point sources? The assumption of no nonpoint nutrient and sediment control practices in place is false. Some forms of control have been implemented to some extent in all sectors since the early 1900's.

The decision to allow wastewater treatment to expand to design capacity (which, in Maryland, for instance, is 30 percent higher than 2020 projected flows) for E3 scenario will place the squeeze on both urban and agricultural nonpoint sources. Nobody has suggested a logically parallel decision for urban nonpoint sources: increase 2020 projected urban acres by 30% to full build-out based on existing zoning, or something along those lines.

A portion of the urban discharge pollutant load comes directly from failed collection systems of the point source dischargers. It is unrealistic to assume that all discharges from point sources are discharged through the outfall. The fact that point source discharges have inflow and infiltration programs is confirmation that these systems are not isolated from the surrounding environment. The repair and upgrade of collection systems while expanding the treatment plants could be more economically feasible than trying to meet an E3 scenario of retrofitting all pre-2006 urban acres with a suite of practices.

In general, the definition for E3 is not realistic. The E3 Scenario was never designed, nor intended, to represent an implementation scenario; it was nothing more than a construct of theory with best professional guess removal efficiencies for urban stormwater removals. As part of the deliberations of the E3 levels by the CBP Urban Stormwater Workgroup, there was a deliberate acknowledgement that highly urbanized areas would not be able to achieve high levels of retrofits due to physical limitations.

Such limitations are coming to light as local governments are undertaking watershed studies. Arlington County, Virginia is in the process of developing such plans and has hired the Center for Watershed Protection to develop retrofit plans. The first one completed in a 1000 acre subwatershed with 30 to 35 percent impervious cover and mostly residential land use identified only 40 potential retrofits locations that collectively would treat less than 10 percent of the impervious cover.[FN3] These realities are clearly in conflict with the stormwater retrofit backstops imposed by the USEPA.

The Northern Virginia Regional Commission staff urges the Commonwealth of Virginia and the USEPA to remove from consideration the setting of stormwater BMP implementation levels at the E3 level

[FN3] Personal Email Communication, Jason Papacosma, Arlington County Dept. of Environmental Services, 10/04/2010

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0523.1.001.006

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

At this extremely late point in time, EPA has unilaterally changed the computer model it uses to judge the adequacy of Virginia's actions. Virginia, however, has determined in its WIP (September 2010) at pages 14-15 that the chlorophyll standard is faulty and that "additional scientific study is needed to provide a more precise and scientifically defensible basis for setting final nutrient allocations." We agree with this finding and determination by Virginia, and we also support Virginia's "Four Part James River Strategy" at pages 15-17 of the WIP to address these major technical problems. We strongly support the WIP with regard to its wastewater elements at pages 11-12 (Source Sector Strategy for Wastewater), at pages 14-17 (James River), and pages 38-50 (Section 5: Wastewater).

Response

See response to Comment No. 0293.1.001.017

Comment ID 0523.1.001.008

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

What is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements.

Response

See response to Comments No. 0228.1.001.002 and 0431.1.001.004.

Comment ID 0552.1.001.005

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

In addition, as the Chesapeake Bay Program has long ago determined, the James River does not influence of mid-Bay water quality and any regulation of James River nutrient discharges should occur only for local water quality protection. Locally, the applicable water quality standard is chlorophyll standard adopted by Virginia in 2005 and approved by EPA. However, the appropriateness of that standard is in question in part due to EPA's unilateral changes to the computer model it uses to judge the adequacy of Virginia's actions. In fact, Virginia has determined in its WIP (September 2010) at pages 14-15 that the chlorophyll standard is faulty and that "additional scientific study is needed to provide a more precise and scientifically defensible basis for setting final nutrient allocations." We agree with this finding and determination by Virginia, and we also support Virginia's "Four Part James River Strategy" at pages 15-17 of the WIP to

address these major technical problems.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0562-cp.001.001

Author Name: Mosca D.

Organization:

Dear Governor McDonnell,

Please submit revisions to your Chesapeake Bay TMDL WIP that are in line with what the scientists on your staff recommend and not the policy makers. The environment is where we all live and it is past time that these issues are removed from the political realm and addressed in a way to benefit everyone and not just VAMWA and industry. Please use your leadership to quell the scare tactics of crying wolf by HRSD's Ted Henifin and James City County's Jim Kennedy that sensible steps to ensure the stewardship of the environment (a core responsibility of the Commonwealth) are outlandishly and prohibitively expensive. It is your responsibility to educate Virginians that your job is to lead us in the development of the Commonwealth's plan that works for ALL Virginians in concert with EPA's guidelines, not to scare people that the EPA backstops have no alternative. The sensible steps we need to take are never going to get less expensive and since we have already missed the previous Ches. Bay goal, it is critically important that we redouble our efforts. DEQ staff has worked very hard and had general support for the development of Total Nitrogen and Total Phosphorus wasteload allocations for the river systems and the watershed general permit. I encourage you to support them and to assist and mentor their counterparts at DCR to develop the no-discharge piece of the plan such that the WIP may be revised unhindered by political pressure. It is the right thing to do for the good of all the people of the Commonwealth.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0583.001.001

Author Name: Campaign Mass

Organization: Virginia League of Conservation Voters

Thank you Governor for the time and energy you and your staff have dedicated to the development of a clean up plan for Virginia's waters. Unfortunately, the plan as it stands now still lacks the specifics required to have any meaningful impact on our water quality. If we squander yet another opportunity to take significant action to clean up Virginia's

waterways, our water quality and the associated economic benefits will continue to fade away.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0583.001.004

Author Name: Campaign Mass

Organization: Virginia League of Conservation Voters

Virginia's clean up plan fails to use the accepted EPA allocation for pollutants or appropriately reduce wastewater treatment plant discharges on the James River.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0584.001.001

Author Name: Campaign Mass

Organization: Sierra Club

Healthy and safe waters improve economic opportunities for all Virginians, through increased benefits to vital sectors of our economy that rely on our waterways and decreased burdens on businesses and citizens impacted by water pollution. Dirty waters kill fish, crabs, and jobs.

Governor McDonnell, I expect you to uphold your solemn duty under Article 11 of the Constitution of Virginia and your repeated promises to protect our water resources. I expect Virginia's clean-up plan to assure success, through issuance of a step-by-step plan that prescribes mandates, funding, and deadlines. The draft clean-up plan fails to provide these assurances. In particular, the plan must:

- a) Call for additional pollution reductions from sewage treatment plants on the lower James River basin;
- b) Commit to real mandates and incentives to reduce polluted runoff from farms and cities; and
- c) Define specific two-year actions to achieve actual pollution reductions over the next 15 years to finally heal our rivers and the Bay.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0585.001.001

Author Name: Campaign Mass

Organization: Virginia League of Conservation Voters

Dear Governor McDonnell:

Thank you for making Chesapeake Bay restoration a top natural resource priority. Ensuring that the James River, other rivers and the Bay are clean is vital to our health, safety and economy.

As you work towards developing, finalizing, implementing and enforcing Virginia's Watershed Implementation Plan, I urge you to ensure we all are a part of the clean up efforts. That includes farmers, developers, industries and residents from around the watershed. We must have specific actions in place that achieve water quality standards by 2025. Additionally polluters should be held accountable for the damage they do to our rivers and streams.

Our rivers, streams and the Bay are too valuable to not restore.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0592.001.001

Author Name: Campaign Mass

Organization: Sierra Club

We all want clean water for Virginia and the rest of the Chesapeake Bay watershed. Unfortunately, Virginia's draft Watershed Implementation Plan fails to take the steps necessary to clean Virginia's rivers, lakes and streams that flow into the Chesapeake Bay. Virginia's cleanup plan should be strengthened to assure success, through a step-by-step plan that prescribes mandates, funding and deadlines. The plan should include:

- Additional pollution reductions from sewage treatment plants on the lower James River basin;
- Real mandates and incentives to reduce polluted runoff from cities and farms; and
- Specific two-year actions to achieve actual pollution reductions over the next 15 years to have all actions in place by 2025 necessary to heal Virginia's waterways

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0594.001.001

Author Name: Campaign Mass

Organization: Sierra Club

We all want clean water for Virginia and the other areas of the Chesapeake Bay watershed. Unfortunately, Virginia's draft Watershed Implementation Plan fails to take the necessary steps to clean Virginia's rivers, lakes and streams that flow into the Chesapeake Bay. Virginia's cleanup plan should be strengthened to assure success, with a step-by-step procedure which includes mandates, funding and deadlines. The plan should include:

- Additional pollution reductions from sewage treatment plants on the lower James River Basin;
- Real mandates and incentives to reduce polluted runoff from cities and farms; and
- Specific two-year actions to achieve actual pollution reductions over the next 15 years in order to have all actions in place by 2025.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0595.001.001

Author Name: Campaign Mass

Organization: Chesapeake Bay Program

Healthy and safe waters improve economic opportunities for all Virginians, through increased benefits to vital sectors of our economy that rely on our waterways and decreased burdens on businesses and citizens impacted by water pollution. Dirty waters kill fish, crabs, and jobs.

Governor McDonnell, I expect you to uphold your solemn duty under Article 11 of the Constitution of Virginia and your repeated promises to protect our water resources. I expect Virginia's clean-up plan to assure success, through issuance of a step-by-step plan that prescribes mandates, funding, and deadlines. The draft clean-up plan fails to provide these assurances. In particular, the plan must:

- a) Call for additional pollution reductions from sewage treatment plants on the lower James River basin;
- b) Commit to real mandates and incentives to reduce polluted runoff from farms and cities; and
- c) Define specific two-year actions to achieve actual pollution reductions over the next 15 years to finally heal our rivers and the Bay.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0596.001.001

Author Name: Campaign Mass

Organization: Virginia League of Conservation Voters

Clean water is good for the economy. It is crucial for our tourism and recreation industries as well as our historic oyster and crab fisheries. We rely on it for drinking water and expect a level of safety in our rivers and streams.

As you work towards finalizing, implementing and enforcing Virginia's Watershed Implementation Plan, I urge you to create real pollution reductions from treatment plants along the lower James River; implements specific mandates and incentives to reduce pollution from farms and cities; and make sure we have specific two -year benchmarks to track and measure our success.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0605.2.001.006

Author Name: Payne L.

Organization: City of Lynchburg, Virginia

At this extremely late point in time, EPA has unilaterally changed the computer model it uses to judge the adequacy of Virginia's actions. Virginia, however, has determined in its WIP (September 2010) at pages 14-15 that the chlorophyll standard is faulty and that "additional scientific study is needed to provide a more precise and scientifically defensible basis for setting final nutrient allocations." We agree with this finding and determination by Virginia, and we also support Virginia's "Four Part James River Strategy" at pages 15-17 of the WIP to address these major technical problems. We strongly support the WIP with regard to its wastewater elements at pages 11-12 (Source Sector Strategy for Wastewater), at pages 14-17 (James River), and pages 38-50 (Section 5: Wastewater).

Response

See response to Comment No. 0293.1.001.017

Comment ID 0605.2.001.008

Author Name: Payne L.

Organization: City of Lynchburg, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). We object to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

It is EPA's preference that the jurisdiction WIPs are used to meet the allocations. However, the WIPs need to meet the expectations outlined in the accountability framework outlined in its September 11, 2008, letter to the Chesapeake Bay Program's Principal Staff Committee (PSC) and further developed in letters sent by EPA to the jurisdictions on November 4, 2009, and December 29, 2009 as well as the eight elements outlined in EPA's April 2010 "Guide for EPA's Evaluation of Phase I Watershed Implementation Plans."

Where WIPs do not meet these criteria, backstop allocations may need to be applied. Where EPA determined that a jurisdiction did not meet its target allocations or did not provide adequate reasonable assurance, EPA calculated that jurisdiction's draft backstop allocations by relying on the adequate portion(s) of the jurisdiction's draft Phase I WIP, where possible, and supplementing any remaining shortfall or insufficient amount of reasonable assurance with its allocation adjustments and determinations of reasonable assurance to achieve the necessary reductions. Although a number of backstop options existed, EPA primarily relied on decreasing the Wasteload Allocations to the point sources. EPA did that because point sources are the pollutant discharging source sector for which the CWA gives EPA the clearest authority to ensure implementation of needed controls. EPA's evaluation of the final WIP for each jurisdiction can be found in Section 8 of the final TMDL report. Also, please see response to comment # 0431.1.001.004.

Comment ID 0608.1.001.006

Author Name: Pallansch Karen

Organization: Virginia Sanitation Authority, City of Alexandria

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

See response to Comment No. 0431.1.001.004.

Comment ID 0614.1.001.004

Author Name: Street William

Organization: James River Association (JRA)

JRA has found substantial concerns with Virginia's Draft WIP and therefore encourages EPA to remain steadfast in its efforts to hold states accountable for addressing deficiencies in their WIPs and implement backstop actions if required. JRA's comment letter to the Commonwealth of Virginia regarding concerns, suggestions and recommendations for Virginia's Draft WIP is attached to this letter as Exhibit 1. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0614.1] Of particular concern are the failure to meet the James River allocations for nitrogen and phosphorus, lack of detail for achieving agricultural pollution reductions, over reliance on an expanded nutrient trading program and unrealistic goals for pollution reductions from existing urban areas and septic systems. JRA also has a special interest in Virginia's proposal to review the James River chlorophyll standards. JRA urges EPA to use its legal authority and technical expertise to ensure that the final Virginia WIP appropriately addresses these concerns and provides a cost-effective plan that achieves a fully healthy James River.

Response

See response to Comment No. 0262-cp.001.002. For the James River comment, please see response to comment # 0293.1.001.017.

Comment ID 0614.1.001.007

Author Name: Street William

Organization: James River Association (JRA)

The Draft WIP Does Not Meet James River Pollution Limits - One of JRA's greatest concerns with the Draft WIP is that it fails to meet the pollution limit that is needed to achieve Virginia's water quality standards for the James River. Virginia's WIP states that it will only meet 60% of the needed pollution reductions even though those standards are attainable through available technology and a similar level of effort that is being implemented in other basins.

Instead of meeting the current James River algae standards, the draft Virginia WIP proposes to review the standards and potentially change them before any additional reductions are planned. While JRA recognizes that the James River algae standard will be reviewed as part of Virginia's 2011 triennial review of all water quality standards, JRA maintains that it is inappropriate to compromise the requirement of the TMDL and WIP of meeting water quality standards based on possible future actions. The Draft WIP should be revised to include actions necessary to fully meet the James River allocation by 2025. Not only will this better meet federal and state requirements, it also will maximize the planning time for the additional actions. After the re-assessment of the algae standards, if some reductions are not necessary to achieve water quality standards, they can more easily be eliminated than added at that time.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. In its final WIP Virginia committed to require WWTP upgrades in the James River Basin along with other sectors sufficient to achieve 100% of the James River Basin waste load allocations. (WLAs). See Section 8 of the TMDL for further discussion. EPA agrees with the that the Bay TMDL allocations are for attaining the current water quality standards (WQS) as required by the Clean Water Act (CWA). The TMDL is required to use the current chlorophyll-a criteria as the basis for James River allocations. If Virginia does modify their WQS for the James River in the future, Virginia is required by the CWA to submit those modifications to EPA for review and approval or disapproval before becoming effective. For a discussion of the James River in the final Virginia WIP and final TMDL, see Comment No. 0293.1.001.017 and Section 8 of the final TMDL report.

Comment ID 0614.1.001.010

Author Name: Street William

Organization: James River Association (JRA)

Many Actions in the Draft WIP Are Unclear - Although specific programs and policies and even draft legislation were developed and proposed by the state agencies, the draft WIP removed nearly all references to specific policy actions that would be proposed. This calls into question how the needed actions will be achieved and undermines the credibility of the plan and the assurance that the plan will be implemented sufficiently to achieve water quality standards. We

recognize that the plan itself cannot commit to certain actions if they require legislative approval, but the plan can and should provide a clear picture of what mechanisms will be pursued.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0614.1.001.014

Author Name: Street William

Organization: James River Association (JRA)

Urban - The pollution reductions proposed in the Draft WIP for existing urban areas are set at the absolute highest levels that are technically feasible. It is widely understood that pollution reductions from retrofitting existing urban areas are the most expensive to achieve and that implementation at this level is unrealistic. Even though the Draft WIP states that the expanded nutrient trading program will be utilized to achieve these reductions in a cost effective manner, placing this level of burden solely on local governments rather than across all sectors makes the plan inequitable and therefore subject to challenge. Additionally, given the difficult financial position of most local governments, the practicality of relying so heavily on them is questionable.

JRA supports including the following elements in the final WIP:

--Set the waste load allocation for existing urban areas at least at Tier 2 level reductions or Tier 3 levels if needed to achieve particular basin allocations.

--Set a corresponding performance standard for each urban area based on applying the appropriate Tier 2 or Tier 3 level reductions to its specific land covers. This will provide flexibility to the locality in selecting the pollution reducing BMP's. This performance standard should be implemented through the MS4 permit for the urban area.

--Utilize the Clean Water Act "residual authority" to establish a permit mechanism for all urban areas that will be subject to a Phase II WIP allocations.

--Establish urban fertilizer regulations that ban the sale of phosphorus fertilizers except in starter fertilizers and organic-based fertilizers, and require slow release nitrogen formulations or the equivalent.

--As state in the Draft WIP, require new development to keep pollution loads below the allowable 2025 average nutrient loads per acre from previous land uses, so future development does not increase nutrient loads. This standard should be implemented through the state stormwater regulations due to be completed by December 2011.

--Require at least 20% reduction in pollution loads from redevelopment projects with greater requirements for larger and less pervious sites that have the capability to achieve greater reductions with more advanced treatment practices.

--Strengthen erosion and sediment controls on construction sites by requiring all "responsible land disturbers" to be trained or be a Professional Engineer and improving the timing of disturbed area seeding/stabilizing and sediment trap sizing.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0659.001.001

Author Name: Heidt W.

Organization:

Subject: Public Comments to Virginia's Draft Phase I Watershed Implementation Plan (WIP)

Dear Secretary Domenech,

I would first like to commend you, your staff, state agencies and the Stakeholder Advisory Group in preparing what appears to be a practical, common sense based response to the federal EPA mandate that all participating states prepare a Draft Phase I Watershed Implementation Plan by September 1, 2010. The preamble contained in the introduction to this document speaks volumes to the level of sensitivity that Governor McDonnell's administration has acknowledged with great concern regarding the enormous potential economic impact that this initiative will likely impose on the people of the Commonwealth of Virginia.

In response to the issuance of the Public Review Draft of the subject WIP and on behalf of myself and several concerned rural residents of Rockingham County who have endorsed this document, I would like to respectfully offer comments specifically addressing the proposed provisions relating to Onsite/Septic systems as a contributing source of nutrients to the watershed. In the interest of brevity, I will limit my rather general comments to the bullet points outlining source sector strategies on page 12 of the document as opposed to the more detailed discussions in Section 8 on page 81.

Implement amendments to Virginia Department of Health regulations for alternative systems (currently under revision).

Emergency regulations recently adopted relating to alternative systems are evidence of the unanticipated consequences of a "hasty" regulatory move toward the more complex and technologically sophisticated alternative onsite systems that were perceived to be more effective at protecting the environment than the time proven conventional onsite septic systems. While these systems are highly effective at reducing nitrogen loss, they only do so when they are functioning as designed, installed and commissioned.

Consider revisions to the Code of Virginia to require all new and replacement systems in the Chesapeake Bay watershed to utilize either: (1) "shallow-placed" systems capable of reducing nitrogen loss (2) denitrification technology to reduce nitrogen loss.

OR

Consider requirements for additional nitrogen reducing technologies in certain defined sensitive areas.

Given the complex design of alternative systems and potential ramifications of a failure of any number of components, it might behoove the Commonwealth to re-review the site specific conditions that typically drive us toward a decision to mandate an alternative system in lieu of a conventional system which may not be as effective at reducing nitrogen loss on a daily basis, but is potentially more effective at consistently discharging a relatively high quality low BOD effluent in the long run due to the inherent reliability of such systems. Perhaps the decision between a conventional and alternative system should consider and more heavily weigh the environmental sensitivity of the site regarding relative proximity to impaired streams and not just the raw soils analysis data and drainage test results. It baffles me as to how some 50 year old conventional systems with relatively small drain fields can continue to provide excellent sub-soil drainage while the same locations would not pass a percolation test imposing today's standards. Could it be that we have gone too far with the standards? A decision to mandate an alternative design should be a last resort action. Conventional systems have many design advantages that are overlooked by those that would advocate alternative systems simply because of the superior nutrient removal efficiency of the alternative system.

- Alternative systems consume energy for blowers and pumps. The generation of that energy produces nitrogen in the form of nitrous oxide which eventually ends up in the bay. One third of the nitrogen in the bay comes from air sources. The power generation also produces carbon which is suspected of causing climate change. The conventional system has a zero carbon footprint.
- Alternative systems depend on the reliability of the electrical system and all electrical components that make up the system. The conventional system relies on gravity which is among the most reliable forms of renewable energy on the planet.
- Alternative systems are much more expensive than conventional systems. On-site systems are indigenous to the most rural areas of Virginia, the very same areas that frequently fall into a lower socio-economic environment where median incomes are typically lower than in those developed areas where public utilities services exist in abundance. Forcing the more expensive alternative system on these Virginians unfairly places a higher per capita bay cleanup cost on those that can least afford it. This in itself will be the greatest challenge in implementing a WIP that incorporates stringent standards unilaterally on the rural community without regard for system size, potential environmental impact and other factors.

Having stated the concern of a perceived tendency to more often than not and perhaps unnecessarily mandating the more complex and costly system(s), I fully support the development and implementation of regulations that address the need to insure ongoing knowledgeable operation and maintenance of these complex systems once they are determined to be necessary, commissioned and turned over to the property owner. However, I would also point out that conventional systems can be prone to the same potential pit fall of failing if the owner of same is not knowledgeable of certain basic operating and lifestyle guidelines when living with any onsite system. A wise rule of thumb here is "An ounce of prevention is worth a pound of cure." I would therefore highly support as part of the WIP more public education on how to care for an onsite system. Those of us that are intimately familiar with how to keep a conventional system functioning trouble free for years know that the following guidelines are critical:

- Don't hydraulically overload the system. Conserve water and thus influent flow. Excess hydraulic loading will wash

solids into the drain field causing damage.

- Don't organically overload the system. Avoid putting food waste down the kitchen sink and abide by the design of the system relative to persons served.
- Don't chemically shock load the system. Avoid heavily chlorinated household cleaners and sanitizing soaps favoring more organic options that will not upset the bio-mass in the septic tank. Biodegradable cleaning products and plain soap.
- Don't overload the system with solids such as paper and hygiene products.
- Do promote healthy bio activity in the system. While there are commercially available products available, an occasional dose of sour milk will also work.
- Last but not least, pump the system once every 5 years to remove excess solids.

Consider revisions to the Code of Virginia to encourage the use of community onsite systems.

Encouraging the use of community onsite systems will almost invariably result in the installation of more alternative systems which have already been discussed at length in regard to advantages and disadvantages. While one might suspect that amendments to the Virginia Department of Health Regulations requiring the assignment of licensed or certified operators to these systems would address most concerns about who will be responsible for community systems, it is highly likely that the locality may end up taking over operation in some cases. A system that is not owned by an individual entity but perhaps by a home owners association or other organization which may or may not be diligent in it's duties could become a liability to others. That being the case, promotion of community systems could become an unfunded mandate on the locality and thus the tax payers supporting that locality. This would be inherently unfair to the tax payers and for that reason, I would oppose same without including provisions to establish either sanitary districts or authorities where those contributing flow to the community system would be fully burdened with costs. Again the challenge will be the economics, as these systems may or may not be affordable to many of the rural residents of Virginia that might have these systems imposed on them in the lower income communities.

Expand the Nutrient Credit Exchange Program to include onsite systems and allow offsets of new septic loads or participation in offsetting increased nitrogen loads from additional onsite systems from other areas within the Chesapeake Bay Watershed

In general this is a good idea. Perhaps a pool or bank of credits could be reserved for assisting certain rural residents that would otherwise not be able to afford upgrades. These credits could be funded by grants or could be offered at a discount rate based on a needs analysis on a case by case basis. Perhaps a system similar to the program that provides funding for septic system pump outs in sensitive areas could be incorporated.

Explore the feasibility of establishing tax credits or other financial incentives for upgrade/replacement of existing conventional systems with nitrogen reducing systems.

Notwithstanding previous comments regarding the apparent trend to advocate alternative systems, I believe any free market based approach to encouraging a particular desired behavior is always better than a government mandated approach. Hence, if it is the opinion of the majority of stakeholders in this WIP that we want to encourage more alternative systems before they have actually proven their worthiness to improve upon the environmental impacts of onsite systems in general, than I would support the use of a tax credit or other financial incentive. However, let's keep in mind that "Cash for Clunkers" was not exactly an overwhelming success in doing anything more than wasting a lot of

tax payer dollars and increasing the deficit. Such a program extended to the world of existing onsite systems could be an equally ineffective endeavor.

Explore the use of grants or other methods to defray expenses on low and moderate income households.

Explore the use of "Betterment Loans" for repairs to existing systems.

As stated previously, anything we impose on the users of onsite systems is going to potentially have a significant negative economic impact on many of those that can least afford it and will unfairly burden those Virginians with a disproportionate share of the economic responsibility for addressing the Chesapeake Bay watershed. I would therefore fully support any methodology to reduce this burden as much as possible.

I would point out that onsite systems are:

- Necessary in rural areas of the Commonwealth as it is simply not feasible or economically practical to consider expanding public service in rural counties beyond what the private sector market based development activity can justify.
- Provide safe, effective treatment of typical low organic loading from single family homes and small businesses.
- Reduce the potential for phosphorus loss unlike centralized treatment plants.
- Provide a valuable source of recharge for the aquifers that rural residents rely upon for well water supplies.

If there is any one common thread that weaves through many of the issues surrounding the subject of nutrient contributions from onsite systems and how best to address those issues, it is the economic impact to a specific sector of the public; i.e. those that must reside or do business in the rural areas of the Commonwealth. Hence, the final argument that I would make regarding how best to manage the situation is that one size or one set of solutions does not fit all circumstances. Therefore, the WIP must be flexible in how it approaches the various different circumstances. The concept of targeting the more environmentally sensitive areas with the more stringent requirements is a good start because at least it minimizes the sheer number of people that are adversely impacted. However, the WIP needs to go farther in addressing for example the difference in the magnitude of the source. As an example, the small two bedroom 1000 square foot single family dwelling contributes less volume flow than the sprawling six bedroom 6000 square foot gentleman's farm mansion while both might sit side by side out in the country. Would it be fair to look at both systems through the same prism, the same set of standards that blindly mandate an alternative system with the same effluent concentration guidelines? Or would it not make more sense to allow a lower cost system with perhaps a more relaxed effluent standard for the small unit than the larger unit thus imposing the higher cost system and higher standard of treatment on the property owner that is in the better economic position to absorb the majority of the net impact of the regulation?

In closing I offer one final comment on a broader note. Challenging the motive, methodology and timing of what appears to be a Federal EPA fast track plan that has the potential to seriously impact the financial well being of 17 million Americans living through the worst economy in a generation and 88,000 farms struggling to remain competitive is a noble effort on the part of the Commonwealth's leadership. Even slowing this process down will help all of us that find ourselves in the unenviable position of living and working within the 64,000 square mile watershed that is ground zero in the cross hairs of big government. Therefore, I would urge the current administration to do everything in it's power to minimize the impacts and delay the actions that this initiative might impose on the citizens of Virginia in hope that it will not impede an economic recovery. Without economic recovery and the necessary tax revenues to properly implement

the proposed plan with adequate federal and state funding, we are sure to fail again and do nothing to help the health and well being of the Chesapeake Bay and those that rely on this body of water for their livelihood.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0668.001.001

Author Name: Lynch I.

Organization:

SUBJECT: The Virginia Watershed Implementation Plan (WIP) for the Chesapeake Bay Total Maximum Daily Load (TMDL)

Dear Sir or Madam:

(1). The U. S. President's May 12, 2009, Chesapeake Executive Order (EO) 13508, Action Plan FY 2011, includes only a brief section on implementation and accountability efforts. The September 9, 2009, Federal Leadership Committee (FLC) also failed to explicitly (clearly, plainly express, or state transparently) define accountability instructions, goals, and/or their time-frames. The public needs more definite accountability instructions from the President and the FLC.

(2). The "Arc News" magazine, Fall 2010 article, "Chesapeake Bay Restoration Made Transparent to Public: Program Builds Web-Based Accountability Tool" stated that the success of the Maryland's Stat Web-based reporting and accountability (transparency) computer tools [established at the May 2009, Maryland Executive Council meeting] influenced the Chesapeake Bay Program (CBP) [federal government] implementation and accountability efforts to form a Chesapeake Stat team to create a similar computer tool. The Chesapeake Stat is built, in part, on the Arc GIS Server, and Arc GIS API for Flex. The Office of Inspector General (OIG) and auditors (federal, state, and/or local) have not reviewed either computer tool (state, and/or federal) to determine whether either is inclusive (comprehensive, having a broad understanding, precise, beyond reproach and disgrace) or not. There is no assurance whether this computer tool protects the public's interest, money, and/or communities. The public definitely needs the OIG and auditors to determine if this computer tool is:

- (a). as transparent and accountable as it is so glamorously advertised.
- (b). as transparent as the title of the magazine article leads the public to believe.
- (c). if it is all-that inclusive, and precise.

(3). The "WIP" to clean-up the Chesapeake Bay is relatively sound. The plan however does not have very-much independent over-sight of the "WIP". This lack of independent over-sight is also very-evident in many other expensive federal long-term projects. Lack of independent over-sight is the norm in the three (3) governments (local, state, and/or federal). The OIG and/or auditors are not mentioned in the plan as over-seers before, during, and/or after any critical-intervals to determine if the three (3) governments (federal, state and/or local) are complying with the plan. The lack of

having a strong presence (close-oversight) of the OIG and/or auditors in the "WIP" is of great concern. The public does not need the OIG and auditors as a last-minute (in-a-rush, hasty, and/or knee-jerk) adjustment (late addition, addendum, and/or amendment) to the "WIP". The public needs the OIG and auditors mentioned up-front and right-now in the "WIP". Why are the OIG and/or auditors not mentioned as a key-integral part in the "WIP"?

(4). There are medical (health) consequences when clean-water for recreation, drinking and other purposes is not available. Can citizens sue if not having clean-water is linked to their medical problems?

(5). Lack of money will undoubtedly be a factor for the three (3) governments (local, state and/or federal) not being able to comply with the plan. At what point, will there be monetary-consequences (penalties and/or fines) for not being able to comply? What will be the monetary consequences to each government for their failures? Will one state be able to blame another state for their state not being able to comply with "EPA" because of cross-pollution, cross-contamination, cross-dilution cross-spillage and/or residual pollution?

(6). Enforcing the "WIP" is a matter that will definitely need the "Federal Court" system to resolve. The citizens will need "Equal Access to Justice Act" (EAJA) money and lawyers to enforce their rights and concerns. Why is this not in the "WIP"?

(7). Documenting, cataloging, and storing (preserving detail) the four (4) Science, Technology, Engineering, and Mathematics (STEM) teams [the first (1st) STEM team] procedures, notes, findings, unknowns, ambiguous-detail, possible-outcomes, solutions, and reports will play a vital-role in finishing the "WIP" before the EPA due date. Guidelines for improved-science (new discoveries) and improved-monitoring data have not been addressed in the "WIP". Passing on leads about problems and delimas to other OIG and/or auditors is essential in multi-level and multiple-jurisdictions' inspections and audits. Who will be the overseer (OIG and/or auditor) for the three (3) governments (local, state, and federal) overseeing the four (4) STEM teams documentation? How will the three (3) overseers (local, state, and federal) use each other's "YEARLY" OIG and/or audit reports so as to follow-up on leads from each other's "YEARLY" reports?

(8). The "WIP" that will be presented at the 2012 year session of the Virginia General Assembly (legislative branch) did not and perhaps will not outline accountability (transparency), and over-sight (OIG and auditors). Useful and accurate bookkeeping and accounting records have not been adequately-explained in-detail (in layman's terms and/or in Plain-English) in the "WIP". This will be a problem as numerous audit findings and consulting reports have heavily-criticized many of the three (3) governments (local, state, and federal) expensive long-term projects. What entity at a higher/independent level will oversee the "WEEKLY" and/or "MONTHLY" bookkeeping and accounting reports of these three (3) governments (local, state, and federal)?

(9). STEM team (the first (1st) STEM team) records' and reports' transparency (highly-visible and/or in plain-sight at all times), bookkeeping, and accounting records' transparency to the public has historically been a problem. At what intervals ("WEEKLY" and/or "MONTHLY") will these three (3) governments (local, state, and federal) be mandated to present these records and reports on a timely basis to the public? And what will be the definition of timely?

(10). A second (2nd) STEM team of independent commercial and government scientist, technologist, engineers, and mathematicians (STEM) team needs to accompany (go-along with, and/or augment) the auditors, and OIG (6 independent overseers) to offer additional help (assist, provide written expert-opinions, and affirm/deny others' solutions

to the development and implementation of the "WIP") is definitely needed to provide constant reviews of the numerous-volumes of paperwork that will be prepared and filed during this arduous and lengthy experimental, developmental, and operational process. Guidelines for improved-science (new discoveries) and improved-monitoring data have not been addressed in the "WIP". Not having (leaving-out, omitting, and/or failing to include) these six (6) independent overseers in the over-sight process would be a wholesale-mistake, require multiple-trials and create unnecessary-errors. The aforementioned needed corrections to the "WIP" will cost millions of dollars. If these aforementioned corrections are not implemented, the cost to the taxpayers will be in the billions of additional dollars to correct these avoidable errors and mistakes.

(11). The public needs as definite as possible an assurance (guarantee, make certain, and/or make completely sure) that protection and restoration of water-quality is at the top of the list of the "WIP" goals. A high expectation but within reason no-holes-barred (at-all-cost) approach should be adhered to as closely as possible. The public will definitely need "YEARLY" public comment periods.

(12). The U. S. President's EO 13508, Action Plan FY 2011, and the FLC covers six (6) states (Delaware, Maryland, New York, Pennsylvania, West Virginia, and Virginia) and the District of Columbia (DC) [seven (7) governments]. The FLC did not (failed to) address over-sight collaboration (working together on scientific efforts) among the six (6) overseers [the four (4) STEM teams, OIG, and auditors] of the six (6) states and DC [seven (7) governments].

Response

The President's Chesapeake Bay Protection and Restoration Executive Order 13508 calls for the federal government to lead a renewed effort to restore and protect the Chesapeake Bay and its watershed. To bring the full weight of the federal government to address the Bay's challenges, the Executive Order established the Federal Leadership committee which is chaired by the Administrator of the EPA. EPA's Chesapeake Bay nitrogen, phosphorus and sediment TMDL is a part of an overall strategy in setting measurable goals for improving the water quality in the Bay and providing accountability to ensure that those goals are met. EPA and this TMDL do not have the authority to instruct or change the President's Executive Order.

While EPA appreciates the commenter's concerns and interest in Maryland's Web-Based Accountability Tool and the commenter's desire for independent oversight for a more accurate and transparent tool, EPA has no authority over the Office of Inspector General and has no authority to direct the OIG's decisions to audit or evaluate EPA or State activities. The Office of Inspector General is an independent office within EPA that helps the Agency protect the environment in a more efficient and cost effective manner. For more information about the OIG and their mission and to contact the OIG, please see their website located at http://www.epa.gov/oig/about_epa_oig.htm. For these same reasons, it would be inappropriate for Maryland WIP's to include activities for the OIG.

With regards to a citizen's right to sue, this TMDL does not take away or add any right for any citizen to litigate as allowed under the laws within the United States. In addition, This TMDL does not provide EPA or States' any more or any less enforcement authority as allowed by the CWA. EPA and States will not be enforcing State WIPs. Rather States will be implementing their WIPs by providing, among other things, NPDES permits effluent limits consistent with the WLAs and the TMDL, as appropriate. State and federal agencies will continue to use their enforcement authority under the CWA to ensure compliance with those permits. Regarding comments directed at funding, please refer to response to comment 0038.1.001.024.

Regarding comments about the Equal Access to Justice Act" (EAJA), this Act provides for the award of attorney fees and other expenses to eligible individuals and organizations that are parties to litigation against the government and prevails in its litigation against the government. A Jurisdiction WIPs are implementation plans to reduce nitrogen, phosphorus and sediment loads as outlined by the TMDL, not a plan for providing funds to award to attorney fees to those who litigate against the TMDL or the WIP.

EPA is documenting and storing all activities related to the development of Chesapeake Bay TMDL. WIPs are jurisdiction watershed implementation plans that identify programs to reduce pollutant loadings to meet the TMDL allocations. Jurisdictions are responsible for the development of the WIPs and any documentation as required by State and federal law. With regards to comments directed at State WIP activities, please refer to response to comment 0034-cp.001.001. EPA does not agree with the commenter that auditors or the OIG is needed to in order to effectively implement the TMDL. EPA and the Jurisdictions have developed an accountability framework which includes the WIPs with a goal of installing all controls necessary to achieve the Bay's water quality standards by 2025. Please refer to Section 8 of the TMDL for more information regarding the WIPs.

Comment ID 0697.001.001

Author Name: Wass J.

Organization:

We all want clean water for Virginia and the other areas of the Chesapeake Bay watershed. Unfortunately, Virginia's draft Watershed Implementation Plan fails to take the necessary steps to clean Virginia's rivers, lakes and streams that flow into the Chesapeake Bay. Virginia's cleanup plan should be strengthened to assure success, with a step-by-step procedure which includes mandates, funding and deadlines. The plan should include:

- Additional pollution reductions from sewage treatment plants on the lower James River Basin;
- Real mandates and incentives to reduce polluted runoff from cities and farms; and
- Specific two-year actions to achieve actual pollution reductions over the next 15 years in order to have all actions in place by 2025.

Response

See response to Comment No. 0293.1.001.017

Comment ID 0698.001.001

Author Name: Smith K.

Organization:

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Response

See response to Comment No. 0293.1.001.017

Comment ID 0703.001.001

Author Name: Merica P.

Organization:

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- Specific two-year actions to achieve actual pollution reductions over the next 15 years in order to have all actions in place by 2025.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0704.001.001

Author Name: Sawyer C.

Organization:

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- Specific two-year actions to achieve actual pollution reductions over the next 15 years in order to have all actions in place by 2025.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0707.001.001

Author Name: Larkin R.

Organization:

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- Real mandates and incentives' to reduce polluted runoff from cities and farms; and
- Specific two-year actions to achieve actual pollution reductions over the next 15 years in order to have all actions iii place by 2025.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.018

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

Comments on Chesapeake Bay TMDL Phase 1 Watershed Implementation Plan prepared by the Commonwealth of Virginia

Dear Sir/Madam:

On behalf of the Chesapeake Bay Foundation's (CBF's) 89,000 members in Virginia, please accept this letter as formal comment on the Chesapeake Bay TMDL Phase 1 Watershed Implementation Plan (draft WIP) prepared by the Commonwealth of Virginia and submitted to the U.S. Environmental Protection Agency (EPA) on September 3, 2010. [FN1] We very much appreciate the dedication of the many state agency staff that contributed to the draft WIP. We further thank the Commonwealth for the opportunity to comment upon this critical work.

Unfortunately, CBF finds that the draft WIP falls far short of providing assurance that actions will be taken by 2025 to achieve the reductions in nitrogen (TN), phosphorus (TP), and sediment pollution called for in the Chesapeake Bay Total Maximum Daily Load (Bay TMDL). [FN2] Promising ideas in the draft WIP are overshadowed by the failure to attain the TMDL allocations in the James River basin and a critical lack of "reasonable assurance," that is, the details, commitments, and accountability needed to cut pollution, particularly nonpoint source (NPS) pollution. Considering the long history of the Bay clean-up effort, the constructive exchange of ideas within the Stakeholder Advisory Group (SAG) over the last year, and the many ambitious new concepts for delivering pollution reductions put forward in earlier versions of the WIP, the draft WIP as submitted to EPA is a significant disappointment.

As has been voiced by EPA and diverse state interests since the release of the draft WIP, CBF concurs that a solution by Virginia for Virginia is best. There is no question that this approach allows a deeper chest of tools and more flexibility in how to achieve the Bay TMDL than is afforded outside entities.

With that belief in mind, herein, CBF provides specific comments to facilitate improvements to the draft WIP. In Section I we describe requirements under the law for Virginia's creation of a WIP that meets TMDL allocations with a high level of reasonable assurance and in Section II we demonstrate that the draft WIP does not approach providing reasonable assurance. Section III provides a summary of our recommended revisions to the draft WIP, and the attached Exhibit 1 provides a detailed evaluation of the draft WIP and specific recommendations on how to create a final WIP that meets TMDL goals. Our recommendations are focused on reducing TN and TP pollution, so the terms "nutrient pollution" and "pollution" used hereinafter refer to these pollutants. In Section IV we offer a revised set of pollution allocations, which only deviate from the pollution allocations envisioned in the Commonwealth's August 24, 2010 "discussion draft" by requiring additional reductions from the wastewater source sector. [FN3] Section V highlights the economic benefits of clean water, and the attached Exhibit 2 extensively documents this fact.[Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1] And lastly, Section VI closes the comments by discussing the economic benefits of clean water and the current state of affairs that justify a new approach to cleaning the Bay and its rivers.

We believe a final WIP that incorporates our recommendations can achieve our revised pollution allocations, and will be achievable, accountable, and give Virginia assurance that the Bay TMDL will be met. Submittal of such a final WIP by the Commonwealth will allow the McDonnell Administration to do something seven previous Governors have failed to do: once and for all to meet their obligation under the Virginia Constitution, state as well as federal law, and multiple agreements to protect the Bay and its rivers from pollution. CBF has, and will continue, to hold EPA to this same high standard when evaluating the draft Bay TMDL. We hereby incorporate by reference the written comments of CBF, the Choose Clean Water Coalition, and Rebecca Hanmer on the Bay TMDL submitted to EPA under Docket no. EPA-R03-OW-2010- 0736.

In the event that the Administration does not take this last opportunity seriously, and .again submits a WIP that fails to

provide reasonable assurance, we firmly stand behind EPA's proposal to approve a "backstop" TMDL, use its "residual authority" to establish more stringent requirements for NPS, and take other appropriate actions to ensure the Bay is finally put on a more certain path toward restoration. It is EPA's duty under the Clean Water Act to protect our waters if Virginia fails to do so.

The Commonwealth and the other six Bay jurisdictions have made important progress reducing pollution. However, the evidence is clear that our mostly voluntary efforts to cut the pollution running off the lands that house and feed our growing population have not, and will not, finish the job. Our recommendations are specifically intended to help solve the growing problem of NPS pollution.

We now have before us a once-in-a-lifetime opportunity to move beyond 30 years of obligations and vital, yet partial, progress to once and for all protect the Bay and its rivers, and in turn, safeguard the hundreds of thousands of jobs and tens of billions in annual economic activity these waters increasingly struggle to sustain. Our efforts today will prevent another generation of the Bay region's children from inheriting our mess .

I. The Clean Water Act and Virginia Law Require that Virginia Adopt an Adequate Watershed Implementation Plan that Meets Bay TMDL Allocations and Provides Reasonable Assurances that Necessary Pollution Reductions Will be Achieved.

Virginia's responsibility to develop an adequate WIP that meets the Bay TMDL allocations and provides reasonable assurances of required pollution reductions is founded, contrary to suggestions in the draft WIP, [FN4] on the firm requirements of both state and federal law .

A. Under the Clean Water Act, TMDLs Must Be Established at Levels Meeting Water Quality Standards and Be Adequately Implemented.

The Clean Water Act (CWA) [FN5] and implementing regulations provide the basis on which the draft WIP must be evaluated. Enacted in 1972 to compel the restoration of the nation's waters [FN 6] the CWA requires the states to establish water quality standards for the waters within their boundaries and to take the necessary actions to ensure that the waters meet those standards, thereby achieving CWA's goals . If a state does not promulgate water quality standards or falls short of CWA requirements in doing so, EPA will set the standards for the state. [FN7] The CWA prescribes the use of technology-based effluent limitations for most point source discharges [FN 8], and if those measures do not achieve water quality standards, CWA requires the use of water quality-based controls under Section 303(d). [FN9]

The draft WIP forms part of the CWA's § 303(d) TMDL program, which requires identification and listing of all impaired water bodies within a state's borders. For each impaired water body, Section 303 and implementing regulations require the state to establish a TMDL for specified pollutants. [FN10] A TMDL is the maximum amount of a pollutant--from background, point and nonpoint sources, together with a margin of safety--that the water body can receive and still attain water quality standards. [FN11] These requirements apply to both point and nonpoint sources of pollution. [FN12] When triggered by CWA requirements, the states and EPA are required to establish a TMDL, as courts have recognized. [FN13]

Once a TMDL is established and approved by EPA, the state must adequately implement it to ensure water quality

goals are attained. Thus, CWA § 303(e)(1) requires each state to have a continuing planning process that results in implementation plans for all navigable waters within state boundaries, which include effluent limitations and compliance schedules as required, §303(d) TMDLs for pollutants, and "adequate implementation, including schedules of compliance, for revised or new water quality standards." [FN14] Resorting to a TMDL is the CWA's "backup" strategy for achieving water quality standards; it is invoked when point source permits and best management practices (BMPs) for NPS have not succeeded. [FN15] Accordingly, EPA may only approve a state-submitted implementation plan that provides assurances it will succeed in "implement [ing] applicable water quality standards." [FN16]

What constitutes reasonable assurances will vary depending on the water body and the pollution sources at issue. [FN17] In the case of TMDLs for waters impaired only by point sources., National Pollutant Discharge Elimination System (NPDES) permitting may be sufficient to provide reasonable assurance that the TMDL's waste load allocations (WLAs) will be achieved. For waters impaired by both point and nonpoint sources, a TMDL may not allocate WLAs based on an assumption that NPS load reductions will occur unless the TMDL provides reasonable assurances that NPS control measures will achieve expected load reductions. [FN18] The bottom line is clear, however: to carry out CWA's command to ensure water quality standards are attained, EPA must be able to determine that a plan's claimed load allocations are not based on excessively optimistic hopes concerning the amount of NPS pollutant reductions that will occur. "If the reductions embodied in load allocations are not fully achieved because of a failure to fully implement needed NPS controls, the collective reductions from point and NPS will not result in attainment of the water quality standards." [FN 19]

B. Under Virginia Law, TMDLs Must Be Established at Levels Meeting Water Quality Standards and Be Adequately Implemented.

The requirement that Virginia adopt an adequate plan to implement a TMDL for impaired waters has been part of the law of the Commonwealth for many years. In fact, even before the enactment of the CWA, the Commonwealth was committed to both protecting and restoring state ...waters. The Constitution of Virginia proclaims, "To the end that the people have . . .pure water it shall be the policy of the Commonwealth . . . to protect its . . . waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth." [FN 20] In 1950, the General Assembly first enacted Virginia's State Water Control Law (SWCL), [FN 21] which reaffirms the Commonwealth's obligation to protect high-quality state waters and to restore "all other state waters to such condition of quality that any such water will permit all reasonable public uses and will support the propagation and growth of all aquatic life including game fish, which might reasonably be expected to inhabit them." [FN 22]

Building on these foundational laws, Virginia adopted the requirements of the CWA §303(d) program, along with other measures to protect water quality. [FN 23] Thus, the General Assembly mandated that the State Water Control Board (Board) prepare CWA § 303(d) reports that identify state waters impaired by nutrients, sediments, and other pollutants and determine the impairments' causes among point and NPS. [FN 24] The Board is specifically required to "develop and implement a plan to achieve fully supporting status" -- defined as "meeting the fishable and swimmable goals of the CWA" -- for impaired waters . [FN 25] The implementation plans must state the date of expected completion, measurable goals, necessary corrective actions, the associated costs, benefits, the and environmental impacts of addressing impairment, and expeditious development and implementation of total maximum daily loads. [FN 26]

These statutes leave no doubt that the CWA governs Virginia's implementation plan including the draft WIP at issue. Indeed, it commands the Board to "develop and implement pursuant to a schedule total maximum daily loads of

pollutants that may enter the water for each impaired water body as required by the Clean Water Act." [FN 27] Accordingly, the adequacy of draft WIP at issue here must be measured against the CWA requirements, including the requirements of meeting the Bay TMDL's allocations and providing reasonable assurances of pollutant load reductions.

C. EPA Is Required by CWA §§ 303(d) and 117(g) to Issue the Bay TMDL and Proceed with the TMDL Process.

EPA is authorized to issue the Bay TMDL and proceed with the Bay TMDL process as a result of the Bay waters' § 303(d) listing, the failure of Virginia and other Bay states to prepare required TMDLs, and CWA § 117(g) .

The long history of and incomplete progress in restoring the Bay are well documented. Over the course of the last 25 and more years, the Bay jurisdictions and the federal government have committed and re-committed themselves to the goal of restoring the waters of the Chesapeake Bay and tidal tributaries . See, e.g., 1983 Chesapeake Bay Agreement (agreement by the governors of Maryland, Virginia, and Pennsylvania, the District of Columbia mayor, the chairman of the Chesapeake Bay Commission, and the EPA Administrator to form the Chesapeake Bay Executive Council to implement plans for protecting Bay water quality) ; 1987 Chesapeake Bay Agreement (agreement by same parties to a 40 percent reduction in point source nutrient pollution and development of a Bay-wide implementation strategy by 2000) and 1991 reevaluation (agreement requiring quantification of the original reduction goals, including "tributary nutrient load allocation") ; 1992 amendment of 1987 Agreement (agreement requiring implementation of tributary-specific strategies to meet Bay water quality goals).

The Chesapeake 2000 agreement commenced a new stage in Bay restoration . The region's jurisdictions, together with the EPA Administrator and the Chesapeake Bay Commission chairman, agreed to implement revised tributary strategies by 2002 and to reduce nutrient and sediment pollution sufficiently to remove the Bay and tidal tributaries from the § 303(d) list by 2010. In 2003, EPA and its watershed partners established nutrient and sediment cap loads on the basis of Bay water quality model projections and allocated those loads among the major river basins as implemented by the tributary strategies. In and around 2004, Virginia, Maryland, and Pennsylvania all passed legislation to create the Chesapeake Bay Commission to assist state legislatures in responding to problems relating to the Bay. [FN 28] In 2004, as well, Virginia and the other six Bay jurisdictions developed what became known as the Chesapeake Bay Tributary Strategies which outlined river basin-specific implementation activities to reduce nutrients and sediment from point and NPS . The tributary strategies led to WLAs and LAs for the river basins that were set at levels very close to those recently stated in the Bay TMDL. In 2005, Virginia, Maryland, and Pennsylvania completed their Tributary Strategies for each major river basin. [FN 29] In 2007, EPA and the Bay jurisdictions reevaluated the tributary strategy nutrient and sediment cap loads and found that sufficient progress had not been made.

While each of these endeavors may have yielded some benefits, they did not lead to removal of the Bay and tidal tributaries from Maryland or Virginia's list of impaired water. [FN 30] Bay waters were included on Virginia's 1998 § 303(d) list, giving rise to the Commonwealth's obligation under the CWA obligation to prepare a TMDL for those waters . Virginia never prepared such a TMDL. Instead, it requested that EPA do so [FN 31] in accordance with a schedule established in a consent decree resolving the American Canoe Assn, et al. v. EPA litigation. [FN 32] Propelled by American Canoe, other consent decrees, memoranda of understanding, and settlement agreements, [FN 33] EPA commenced the process of preparing the TMDL, pursuant to CWA §§ 117(g) and 303(d), and current case law. Section 117(g) directs the EPA Administrator in coordination with the Chesapeake Executive Council to "ensure that management plans are developed and implementation is begun by signatories to the Chesapeake Bay agreement, to achieve and maintain . . .the nutrient goals of the Chesapeake Bay Agreement for the quantity of nitrogen and

phosphorus entering the Chesapeake Bay and its watershed. .." [FN 34] The Bay TMDL, which sets sediments and Bay nutrient target loadings, is such a management plan.

In view of the decisions of Virginia and other Bay states not to establish TMDLs for impaired Bay waters as required by CWA 303(d), the fact that the impaired Bay waters constitute a multi-state system impaired by pollutant loadings from seven jurisdictions, and that EPA acts pursuant to the consensus direction of the Chesapeake Executive Council's Principals Staff Committee, EPA's decision to proceed with the TMDL is fully authorized. [FN 35] Indeed, that decision embodies the directive in Executive Order 13508 that EPA "make full use of its authorities the CWA." [FN 36] [FN 37]

D. Virginia Is Required to Adopt an Adequate WIP that Meets the Bay TMDL Allocations and Provides Reasonable Assurances.

The requirement that Virginia adopt an adequate WIP that implements the Bay TMDL meets the Bay TMDL allocations, and includes reasonable assurances of point and nonpoint source pollution reductions is a crucial aspect of the Bay TMDL and its "accountability framework."

The WIP is intended to fulfill several crucial components of the Bay TMDL framework.[FN 38] Virginia is expected to meet, but not exceed, the Bay TMDL's total nutrient and sediment allocations to the Commonwealth and its basins, and to sub-allocate those limits among point and nonpoint source sectors and individual permitted sources within the area draining to each of the applicable § 303(d) segments in Virginia . Further, the WIP is expected to identify specific actions and controls to be 60 percent implemented by 2017 and 100 percent implemented by 2025. Specifically, the WIP must provide information concerning interim and final nutrient and sediment target loads; current loading baselines and program capacity (including current legal, regulatory, programmatic, financial, staffing, and technical capacity to deliver the target loads) ; ways growth will be addressed; gaps in program capacity ; Virginia's commitment and strategies for filling; the gaps; tracking and reporting protocols; contingencies for slow or incomplete implementation; and detailed targets or schedules. [FN 39] Note that the EPA WIP guidance sets a standard that is very similar to that required for TMDL implementation plans in Virginia law. [FN 40] [FN 41]

The WIP, as a CWA implementation plan, is required to provide reasonable assurances that its allocations, including NPS allocations, will be achieved. The draft WIP asserts there is "some uncertainty" regarding the meaning of the term "reasonable assurance," and it suggests that the draft WIP's cursory references to "existing authority," "means of implementation," and to seeking "additional authority" will be sufficient to meet that requirement . EPA has issued a plethora of guidance on the subject that both confirms that reasonable assurances are the binding, enforceable, and/or incentive based tools that are included in an implementation plan to demonstrate that water quality goals will be attained and makes it clear that there is no "uncertainty" in this term that could justify any failure on Virginia's part to comply. For example, in 1991, EPA explained:

"Assurances may include the application or utilization of local ordinances, grant conditions, or other enforcement authorities. For example, it may be appropriate to provide that a permit may be reopened for a WLA which requires more stringent limits because attainment of nonpoint source load allocation was not demonstrated . . . State nonpoint source management programs may include, as appropriate, nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects. [FN 42] The TMDL is established so that the statutorily-required water quality standards are achieved, reasonable assurances must be given that the nonpoint source load allocations will be achieved. [FN43]

EPA's 1997 TMDL guidance, "New Policies for Establishing and Implementing Total Maximum Daily Loads (TMDLs)" further states, "It is now time to move towards the next stage of our strategy to achieve water quality standards--to make sure that TMDLs are established for all listed waters, and that the load allocations established by TMDLs are implemented by point and nonpoint sources alike." [FN 44] The guidance continued by explaining that "reasonable assurance that the nonpoint source load allocations established in TMDLs (for waters impaired solely or primarily by nonpoint sources) will in fact be achieved. These assurances may be non-regulatory, regulatory, or incentive-based, consistent with applicable laws and programs." [FN45] To the same effect is EPA's 2002 document, "Guidelines for Reviewing TMDLs under Existing Regulations issued in 1991" which states for waters that are impaired by both point and nonpoint sources, "reasonable assurances that nonpoint source control measures will achieve expected load reductions [are required] in order for the TMDL to be approvable." [FN46]

EPA has repeatedly clarified its expectations concerning "reasonable assurances ." By letter dated September 11, 2008, EPA provided the Chair of the Chesapeake Bay Program's Principals' Staff Committee with information about how EPA intends for the Bay TMDL to allocate nutrient and sediment loads and provide accountability for basin-wide reductions to meet water quality standards. This letter also included, in "Enclosure A," detailed information concerning what the states were expected to provide by way of the reasonable assurance implementation framework for the Bay TMDL.

EPA offered a similar explanation in 2009, as the Bay TMDL process gathered momentum: [FN47]

"When EPA establishes or approves a TMDL that allocates loads to both point and nonpoint sources, it determines whether there is a 'reasonable assurance' that the nonpoint source load allocation will, in fact, be achieved and water quality standards be attained. EPA does this to be sure that the load allocations are not based on too generous assumptions regarding the amount of nonpoint source pollutant reductions that will occur. If the reductions embodied in load allocations are not fully achieved because of a failure to fully implement needed nonpoint pollution controls, the collective reductions from point and nonpoint sources will not result in attainment of the water quality standards." [FN 48]

Accordingly, the WIP will not be accepted by EPA as meeting applicable water quality standards unless the proposals it makes to reduce pollution loadings from nonpoint sources are clear and transparent, specific in their manner of effectuation, and enforceable through legislation, regulation, enforceable agreements, and appropriate and/or verifiable incentive programs. As shown below, Virginia's current draft WIP falls far short of this requirement.

II. Virginia's Draft WIP Does Not Meet the Bay TMDL Allocations or Include Reasonable Assurances Showing that Necessary NPS Pollution Reductions Will Be Achieved.

The draft WIP does not conform to the requirements of the CWA. Most obviously, its nutrient allocations exceed the limits stated in the Bay TMDL for the James River that are necessary to meet the current chlorophyll a standard.

Equally important, the draft WIP does not provide reasonable assurances that the NPS reductions on which it relies to meet the Bay TMDL's allocations will be achieved . The draft WIP indicates the Commonwealth will "consider" or "explore" significantly expansion of a number of programs and practices that would be critical to achieving the reductions promised by the document, yet the document has not persuasively-or, in some cases, at all-explained how

the expansions will be accomplished. Thus, the draft WIP relies to a significant degree on a barely-described proposal for a greatly enlarged nutrient credit exchange (NCE) as a way of meeting the nutrient and sediment reductions that are required by the TMDL. Indeed, the draft WIP repeatedly claims that the significant reductions promised for the urban runoff and on-site septic sectors "can be attained through expansion of the Virginia Nutrient Credit Exchange (NCE) program." [FN 49] Although the program apparently would rely on nutrient credit purchases by the urban runoff and onsite septic system sectors, [FN 50] nothing in the draft WIP describes what mechanism-whether regulatory or other-would create a demand for such credits. This issue is further discussed in Section III.

The WIP is strikingly devoid of necessary details concerning the how and when of possible changes in Virginia's regulatory and legislative frameworks that would be required to meet the reasonable assurances standard with respect to claimed nutrient reductions. A few of the many examples of this problem include the draft WIP's references to the onsite wastewater sector (noting the need to "consider revisions" to the Code of Virginia concerning new and replacement systems and requirements for additional nitrogen-reduction technologies) [FN 51] and the urban runoff sector (noting the need to "consider controls" on non-agricultural lawn and turf fertilizers). [FN 52] The lack of specificity is all the more disappointing given that the SAG members and agency staff put forward many thoughtful proposals to meet these gaps.

For other proposed reductions, the draft WIP asserts it will rely almost exclusively on voluntary measures, without enforcement or verification strategies, clear incentives, or regulatory drivers that could persuasively indicate the measures will be adopted and NPS reductions made. This strategy is especially striking in the context of the draft WIP's proposal to require 100 percent BMP implementation for urban runoff and onsite wastewater sectors and vastly increased agricultural BMP usage-yet these increases would be accomplished without mandates and without any detailed or plausible commitment on the part of the Commonwealth to increase available funding. [FN 53] As discussed throughout these comments, our position is that voluntary means will not suffice to meet the reasonable assurance requirement.

The deficiencies in the draft WIP cannot be excused by reference to any special provisions of Virginia law concerning implementation costs, as the draft WIP seems to suggest. As shown above, Virginia law requires conformity to the Section 303(d) program. Moreover, the Code section that prescribes implementation plans to address impaired waters provides no support for any idea that costs would justify delay in the development of an adequate implementation plan. [FN 54]

Further, the draft "target loads" provided by EPA in November 2009 and the draft TMDL allocations released in July 2010 do not differ significantly from those published in the tributary strategies in 2005. [FN 55] The Commonwealth has been in regular contact with EPA since 2005 participated actively in Chesapeake Bay Program committees (including the Principals Staff Committee, Executive Committee, and Water Quality Implementation Team), was a party to the decision for EPA to pursue a Bay TMDL in 2007, and worked closely with EPA over the last year to establish the draft WIP. Based on these facts we resolutely reject the WIP's suggestion [FN 56] that the allocations were unexpected or in any way impede the Commonwealth's ability to develop a final WIP that meets the Bay TMDL.

As part of the draft Bay TMDL, EPA included its review of draft WIP-based applicable laws and regulations and the detailed EPA WIP guidance and concluded that the draft was "seriously deficient." [FN 57] The draft WIP's numerous failures to provide reasonable assurances of nonpoint source reductions prevent EPA --- and prevent the Commonwealth --- from ascertaining whether the WIP will be able to meet water quality standards. The draft WIP

cannot be approved in these circumstances . Thus, we concur with EPA's conclusion that the draft WIP is "seriously deficient." It neither meets the Bay TMDL's allocations nor the requirements of CWA § 303(c) requiring reasonable assurances for NPS pollution reductions . CBF respectfully urges the Commonwealth to amend the draft WIP, in the manner detailed below, to address these deficiencies.

III. CBF Specific Recommendations for Improving the Draft WIP.

In the attached Exhibit 1, CBF provides a number of recommended revisions to the "Accounting for Growth," "Strategy to Fill Gaps," and "Contingencies" sections of the draft WIP to address its two principal shortcomings discussed in the previous section: (1) it does not present sufficient pollution reductions to meet the TMDL allocations for TN and TP in the James River in 2017 or 2025, and (2) it lacks binding commitments to provide the program capacity needed to give reasonable assurance that reductions in NPS pollution will be achieved and pollution from future growth will be prevented.

Recommendations to alleviate the key deficiencies in the draft WIP are provided for the four largest pollution source sectors: wastewater treatment plants (WWTPs), agriculture, urban runoff, and onsite wastewater systems (onsite systems). Comments and recommendations are not provided for the forest and resource extraction sectors. Table 1 provides a brief summary of our recommendations described in more detail in Exhibit 1. Many of these recommendations were provided to the McDonnell Administration in a July 20, 2010 letter. [FN 58] In addition, we include two brief additional sections that address the proposed expansion of the NCE and the use of two-year milestones to help meet TMDL goals. We also include some supplemental ideas for the WWTP sector if our specific recommendations prove untenable. Each recommendation includes (i) identification of the shortcomings in the draft WIP the revision will help address, (ii) a description of the revision, including the deadline for major actions, (iii) rough estimate of reductions in delivered TN and TP, if amendable to quantification without scenario builder or Bay modeling, and (iv) details of existing and new program capacity needed to implement the revision.

In narrowing down our list of recommendations, CBF focused on those that appeared realistic and achievable, are the most cost effective, attain better equity for citizens across river basins, and deliver additive benefits for local streams and communities. Some additional benefits could include nutrient reductions to streams that are scheduled to be subject to freshwater nutrient criteria beginning in 2013, recharge of groundwater sources, and assistance meeting other local water quality priorities (bacteria TMDLs, flood control, Municipal Separate Storm Sewer [MS4] permit requirements, etc.). [FN59]

Lastly, these recommendations are not presented as the only means to improve the draft WIP. There are surely many other ways to improve the draft WIP, some of which were discussed during the SAG meetings. Thus, these recommendations and the projected pollution reductions are not absolute by any means. Our intent in providing them is to broadly illustrate the wide range of options available to the Commonwealth for developing a final WIP that meets the Bay TMDL.

Table 1: Summary of CBF Recommendations [Please see page 12 of the original comment letter (Docket ID 0732.001)]

IV. Revised Pollution Allocations Consistent With CBF Recommendations.

CBF proposes a revised set of TN and TP allocations for 2017 and 2025. Our suggested allocations only differ from the

allocations put forward by the August 24, 2010 discussion document by reducing allocations for the WWTP sector in accordance with our recommendations. We call for significant pollution reductions from the James River basin, with some further effort spread across the remaining river basins. We did not include any lower NPS allocations than those proposed in August 2010 because we believe implementation of the types of recommendations we put forward can meet these goals. Reductions in NPS pollution beyond these levels would require more aggressive actions. Since they were created without use of the Bay watershed model or scenario building tool, these projected reductions are not presented as absolute, and are presented to illustrate potential options. Tables 2 provides the 2025 pollution allocations included in the draft WIP, those put forward in the August 24, 2010 discussion document, and our proposed revised allocations. Table 3 shows the anticipated 2017 progress under these same three allocation schemes.

Our recommendations result in a reduction in allocations to WWTPs by 5,257,769 pounds per year TN and 652,685 pounds per year TP. These reductions help:

- Overcome the TN pollution reduction shortfall in meeting the 2017 goals and 2025 TMDL allocations, and nearly overcome the TP reduction shortfall in meeting the 2017 and 2025 goals.
- Allow the allocations for the agriculture, urban runoff, and onsite system sectors to be increased consistent with the levels of treatment envisioned in the discussion document.

TN is reduced almost 1,000,000 pounds per year below the 2025 allocation in this analysis. This is because lower allocations were necessary to help meet the James River-specific allocations intended to meet the chlorophyll a criteria in the lower James.

Exhibit 1 provides more detail and perspective about our reasoning for focusing on the WWTP sector and the James River basin, how we arrived at these estimates, and how they and other options can replace and/or augment our recommended actions to fully achieve the 2017 and 2025 goals for both TN and TP.

Table 2: Revised Virginia Chesapeake Bay TMDL Allocations [Million Pounds/Year] [Please see page 15 of the original comment letter (Docket ID 0732.001)]

Table 3: Revised Virginia Chesapeake Bay TMDL Allocations-2017 Target [Million Pounds/Year] [Please see page 15 of the original comment letter (Docket ID 0732.001)]

Since the majority of the cut in allocations is taken from WWTPs in the James River basin, in Table 4 and 5 below we illustrate whether our recommendations similarly help meet the goals in the James. For both TN and TP, our suggestions help meet the 2017 goals and nearly meet the 2025 goals.

Table 4: Revised James River Basin TMDL Allocations [Million Pounds/Year] [Please see page 15 of the original comment letter (Docket ID 0732.001)]

Table 5: Revised James River Basin TMDL Allocations-2017 Target [Million Pounds/Year] [Please see page 15 of the original comment letter (Docket ID 0732.001)]

In sum, we believe the proposed revised allocations are equitable, realistic, and attainable, and our recommendations

can assist in meeting them through 2025.

V. The Value of the Bay and Clean Waterways Across Virginia.

The draft WIP and this comment have thus far discussed new actions, and potentially new costs, to deliver additional pollution reductions to the Bay and its rivers. There has been considerable discussion by the McDonnell Administration, stakeholders, and in the media about how much it will cost the state, businesses, and the people of Virginia to implement the WIP.

To put these costs in proper context, one must consider the other side of the equation—that clean water improves economic opportunities for all Virginians, through increased benefits to vital sectors of the economy that rely on our waterways and decreased burdens on businesses and citizens impacted by water pollution. In Exhibit 2, we provide extensive documentation on eight categories of benefits or avoided costs that demonstrate the value of the Bay and clean waters across Virginia. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1] Here are several striking highlights of the exhibit to consider:

- Based on a 1989 study by the University of Maryland, an expert panel set the value of the Bay at over \$1 trillion, with an annual economic benefit of \$33 to \$60 billion.[FNs 60, 61, 62, 63]
- A 2008 National Oceanic and Atmospheric Administration (NOAA) report said that commercial seafood industry in Maryland and Virginia contributed \$2 billion in sales and more than 41,000 jobs to the local economy.[FN 64]
- Our crab report from 2008 calculated that between 1998 and 2006 crabbing-related jobs in Maryland and Virginia declined 40 percent, from 11,246 to 6,760. [FN 65]
- Our 2010 oyster report states that the decline of the Bay oyster over the last 30 years has meant a loss of more than \$4 billion for Maryland and Virginia. [FN 66]
- A recent study in Hampton, Virginia found that resident and non-resident boaters were responsible for \$55 million in economic impact and 698 jobs to this city.[FN 67]
- A study by the Brookings Institute projected a 10 percent increase in property values for homes near a proposed \$26 billion Great Lakes restoration project.[FN 68]
- Threats from sewage and bacteria forced Maryland and Virginia to close or restrict shellfish harvesting in 223,864 acres of the Bay and its rivers in 2008, eight percent of the total shellfish beds. [FN 69]
- An EPA study of drinking water protection concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs.[FN 70]
- A study by the University of Virginia concluded that over a five year period implementation of agricultural BMPs in line with the Virginia tributary strategies would create nearly 12,000 jobs and that every \$1 spent to implement BMPs generates \$1.56 in economic activity. [FN 71]

When discussing the James River Strategy, the draft WIP states that the Commonwealth will be conducting a cost-benefit study to help inform the Phase 2 WIP process.[FN 72] We urge the state to reflect upon the information in this section and consider the jobs, economic benefits, and foregone costs associated with clean water when preparing the final WIP and conducting future cost-benefit analysis to support WIP execution.

VI. Conclusions.

CBF believes firmly that the draft WIP falls far short of meeting Virginia's obligations under its Constitution and state laws, and does not allow EPA to meet its own obligations under the Clean Water Act to create a Bay TMDL package that provides reasonable assurance that water quality standards will be achieved and maintained in the Chesapeake Bay and its rivers. We further believe that by creating a final WIP that includes the types of recommendations we describe that Virginia can chart its own course for meeting the Bay TMDL—something the majority of Virginians prefer.

There is no question that creating a WIP that provides reasonable assurance that the Bay TMDL will be met is not an easy task. If it were, we would have completed the work years ago. However, based on our respect for the skills and experience of the agency staff charged with composing the final WIP, we have high expectations that a much improved document will be submitted to EPA on November 29. Nonetheless, if the McDonnell Administration fails to improve the WIP, CBF supports EPA's proposal to shift more pollution reduction responsibilities to regulated point sources via the backstop TMDL, use its residual authority to address NPS pollution, and to assume a more direct role in the protection of our waters.

This is our generation's chance to make our mark and finish the job. We need to take it. It is far past time for all of us to make a real commitment to cleaning up the Bay and its 100,000 streams so we can stop passing on our pollution to the creek across the street, to our neighbors, to the businesses downstream, and ultimately, to our children.

Thank you again for the opportunity to comment on this critically important work for the people of Virginia. If you have any questions regarding these comments, please feel free to contact me at 804/780-1392 or at mgerel@cbf.org.

Sincerely,

Mike Gerel

Virginia Senior Scientist

Attachments:

EXHIBIT 1: DETAILED RECOMMENDATIONS FOR THE COMMONWEALTH OF VIRGINIA CHESAPEAKE BAY TMDL PHASE 1 WATERSHED IMPLEMENTATION PLAN

EXHIBIT 2: THE VALUE OF THE CHESAPEAKE BAY AND CLEAN WATER ACROSS VIRGINIA

cc: The Honorable Douglas Domenech, Virginia Secretary of Natural Resources
The Honorable Todd Haymore, Virginia Secretary of Agriculture and Forestry
Anthony Moore, Assistant Secretary for Chesapeake Bay Restoration

David Paylor, Director, Department of Environmental Quality
David Johnson, Director, Department of Conservation and Recreation
The Honorable Shawn Garvin, Administrator, EPA Region 3
Jeff Corbin, Special Assistant to the Regional Administrator
Roy Hoagland, Vice President for Environmental Protection and Restoration, CBF
Jon Mueller, Vice President for Litigation, CBF
Ann Jennings, Virginia Executive Director, CBF
Beth McGee, Senior Regional Water Quality Scientist, CBF
Peggy Sanner, Virginia Staff Attorney, CBF
Kristen Hughes, Virginia Staff Scientist, CBF

[FN 1] Chesapeake Bay TMDL Phase 1 Watershed Implementation Plan. Revision of the Chesapeake Bay Nutrient and Sediment Tributary Strategy . Public Review Draft. Commonwealth of Virginia. September 2010 . Hereinafter "draft WIP."

[FN 2] Draft Chesapeake Bay Total Maximum Daily Load. U.S . Environmental Protection Agency, September 24, 2010 .

[FN 3] Commonwealth of Virginia . 2010 . Virginia's Watershed Implementation Plan: Background, Approach and Summary of Proposed Actions Discussion Draft, 8/24/2010. This document was distributed at the last SAG meeting before release of the draft WIP. It proposed levels of treatment and corresponding actions for the main source sectors . The levels of treatment corresponded to a scoping spreadsheet distributed to the SAG that described for TN and TP current reduction progress, allocations consistent with an "everything, everywhere, by everyone" or E3 level of treatment, and allocations consistent with two lesser treatment levels, termed Level 2 and Level 3.

[FN 4] See, e.g., draft WIP, at i (noting Governor McDonnell's stated concerns about the "legality," "compressed ti and other aspects of the draft Bay TMDL).

[FN 5] 33 U.S .C . §§ 1251, et seq.

[FN 6] 33 U.S .C . §§ 1251(a)(2) and 1313(c)(1) (CWA goal is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters") .

[FN 7] 33 U.S .C . §§ 1303(b), (c)(3)-(4) .

[FN 8] 33 U.S .C . § 1311(b)(1) .

[FN 9] 33 U.S .C . § 1313(d).

[FN 10] 33 U.S .C . § 1313(d)(1)(C). Development of a TMDL is mandatory when triggered by the CWA. See Natural Resources Defense Council v. Fox, 909 F. Supp. 153 (S .D .N.Y. 1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in Section 303); Alaska Center for the Environment v. Reilly, 762 F. Supp (W.D . Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs). '

[FN 11] See 33 U.S.C. § 1313(d)(1)(C) ; 40 CFR §§ 30.2(e)-(i).

[FN 12] "E.g., *Pronsolino v. Nastri*, 291 F. 3d 1123, 1135-1140 (9th Cir. 2002) .

[FN 13] E.g., *Natural Resources Defense Council v. Fox*, 909 F. Supp. 153 (S.D.N.Y.1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in CWA § 303); *Alaska Center for the Environment v. Reilly*, 762 F. Supp. 1422 (W.D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs); *Sierra Club v. Hankinson*, 939 F. Supp. 872, 873 (N.D. Ga. 1996) (To attain CWA goals, EPA must ensure that TMDLs are implemented) .

[FN 14] See 33 U.S.C. §§ 1313(e)(1) and (e)(3)(C),(F) ; 40 C.F.R. Part 130.6(b),(c) (TMDLs must be included in Water Quality Management Plans used to direct implementation) .

[FN 15] See 33 U.S.C. § 1313(d)(1)(A); 40 C.F.R. § 130.7(b)(1) .

[FN 16] See 33 U.S.C. § 1313(d)(2) .

[FN 17] See *Guidelines for Water Quality-Based Decisions: The TMDL Process* (1991 EPA Office of Water Regulations and Standards) (" 1991 Guidance").

[FN 18] *Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992* (EPA 2002), available at <http://www.epa.gov/owow/tmdl/guidance/fina152002.html> ("2002 Guidance") .

[FN 19] See Correspondence, dated November 9, 2009, from William C. Early, Acting EPA Regional Administrator, to L. Preston Bryant, Virginia Secretary of Natural Resources, at 5 .

[FN 20] Va. Const., art. X1, sec. 1 .

[FN 21] Va. Code §§ 62.1-44.2, et seq.

[FN 22] Va. Code § 62.1-44.2 .

[FN 23] Other Virginia water quality statutes include Va. Code §§ 62.1-44.19 :12 (Chesapeake Bay Watershed Nutrient Credit Exchange Program,) and 2.2-218 (requiring Secretary of Natural Resources to "coordinate the develop tributary plans" that address nutrients and sediments entering Chesapeake Bay).

[FN 24] Va. Code §§ 62.1-44.19:5 .C and 62.1-44.19 :5 .D .

[FN 25] Va. Code § 62.1-44.19:7.A.

[FN 26] *Id.*

[FN 27] Va. Code § 62.1-44-19 :8 (emphasis added) . The General Assembly also emphasized the importance of the mandating that the Secretary of Natural Resources develop plans for cleanup of the impaired waters of the CI Bay as designated by EPA, and further mandated that the plan be revised as needed to reflect strategies, timel and milestones,

measurable and attainable objectives, strategies to meet specific and attainable timetables out the plan, time frames or phasing to accomplish plan objectives and the expected date of completion, a clearly prioritized, and funded program of work within the plan for better point and nonpoint source cleanup, disbur: projection plan with list of specific projects, problem areas, risk mitigation strategies, descriptions of extent c coordination, assessments of alternative funding mechanisms, recommendations to funding committees for le action. See VA Code § 62.1-44.117.

[FN 28] Va. Code § 30-240, and seq.

[FN 29] Chesapeake Bay Nutrient and Sediment Tributary Strategies (2005, Commonwealth of Virginia).

[FN 30] In 1998, portions of the Chesapeake Bay and its tidal tributaries were identified as impaired for aquatic life exceedance of the numeric criteria for dissolved oxygen caused by nutrient and sediment pollutants on Virgin 303(d) list . Other Bay and tidal tributary segments impaired by nutrients and sediment were identified on the lists of Maryland and the District of Columbia. See 74 FR 47792 (September 17, 2009)

[FN 31] See Chesapeake Bay Program Principals' Staff Committee, 2007.

[FN 32] E.g., Consent Decree, American Canoe Ass'n, et al. v. EPA, et al ., 54 F. Supp. 2d 621 (E.D. Va. 1999) .

[FN 33] See Settlement Agreement, dated May 10, 2005, Fowler, et al. v. EPA, Case No. 1 :09-CV-0005-CKK 34 (D .D

[FN 34] 33 U.S .C. §1267 (g).

[FN 35] See, e.g., Scott v. City of Hammond, 741 F. 2d 992 (7th Cir. 1984); Dioxin/Organochlorine Center v. Clarke 3d 1517 (9th Cir. 1995); American Canoe Ass'n. v. EPA, 30 F. Supp. 2d 908 (E.D. Va. 1998) .

[FN 36] The draft WIP suggests that Virginia was not a party to the American Canoe Association case consent deer(draft WIP, at 1. However, as shown above, Virginia was independently obligated to prepare an adequate implementation plan . Moreover, while the draft WIP (somewhat contradictorily) suggests that the May 2011 c in that decree should govern, the fact is, as shown above, Virginia had an independent obligation to adopt an i implementation plan to restore the waters of the Bay and tidal tributaries.

[FN 37] Executive Order 13508, 74 Fed. Reg. 23099 (May 15, 2009).

[FN 38] See EPA letter to Principals' Staff Committee, September 11, 2008 .

[FN 39] See Bay TMDL; see also correspondence from William C. Early, Acting EPA Regional Administrator to L. Preston Bryant, Virginia Secretary of Natural Resources (November 4, 2009); A Guide for EPA's Evaluation of Phase I Watershed Implementation Plans (April 2, 2010).

[FN 40] See Va. Code §§ 62.1-44.19 :5 .C and D; 62.1-44 .47.

[FN 41] Va. Code § 62.1-44-19 :8.

[FN 42] See 1991 Guidance (emphasis added), at 6.

[FN 43] Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992 (US EPA 1991a) . www.epa.gov/owow/tmdl/guidance/fina152002.htm1.

[FN 44] *Id.*, at 1.

[FN 45] *Id.*, at 6.

[FN 46] "Guidelines for Reviewing TMDLs under Existing Regulations issued in 1991," at 5 .

[FN 47] See EPA correspondence to then-Virginia Secretary of Natural Resources L. Preston Bryant, Jr . for the Ch(Bay Program's Principals' Staff Committee (November 4, 2009), at 15 .

[FN 48] *Id.*, at 5 . See also U.S . E.P.A. (2002).

[FN 49] See draft WIP, at 7, 9-10, 36-37.

[FN 50] See draft WIP, at 4-6.

[FN 51] See draft WIP, at 12.

[FN 52] See draft WIP, at 13.

[FN 53] See draft WIP, at 60.

[FN 54] Va. Code § 62.1-44.19:7.A.

[FN 55] Letter from Shawn Garvin, EPA, Regional Administrator to Doug Domench, Virginia Secretary of Natural Resources. July 1, 2010.

[FN 56] See draft WIP, at i (noting Governor McDonnells reference to "compressed timing").

[FN 57] Letter from William Early, EPA, Acting Regional Administrator to L. Preston Bryant, Virginia Secretary of Natural Resources. November 4, 2009; A Guide for EPAs Evaluation of Phase I Watershed Implementation Plans. (April 2, 2010); Bay TMDL, Section 8.

[FN 58] Letter to Doug Domenech, Virginia Secretary of Natural Resources from Ann Jennings, Virginia Executive Director, CBF, on July 20, 2010.

[FN 59] DEQ. 2010. Nutrient Criteria Development Plan for the Commonwealth of Virginia. March 24, 2004 (with 2010 Updates).

[FN 60] Maryland Department of Economic and Employment Development. 1989. Economic Importance of the

Chesapeake Bay.

[FN 61] Chesapeake Bay Blue Ribbon Finance Panel. 2004. Saving a National Treasure: Financing the Clean up of the Chesapeake Bay. A Report to the Chesapeake Executive Council from the Chesapeake Bay Watershed Blue Ribbon Finance Panel.

[FN 62] EPA. 2009. Draft Chesapeake Bay Compliance and Enforcement Strategy.

[FN 63] Maryland Department of Natural Resources. www.dnr.state.md.us/dnrnews/infocus/bay_faq.html. Visited July 22, 2010.

[FN 64] NOAA 2008. 2008 Fisheries Economics of the U.S.

[FN 65] CBF. 2008. Bad Water and the Decline of Blue Crabs in the Chesapeake Bay.

[FN 66] CBF. 2010. On the Brink: Chesapeake's Native Oysters: What It Will Take to Bring Them Back.

[FN 67] Virginia Institute of Marine Science. 2009. Assessment of the Economic Impacts of Recreational Boating in the City of Hampton.

[FN 68] J.C. Austin, et. al. 2007. America's North Coast: A Benefit-Cost Analysis of a Program to Protect and Restore the Great Lakes. Brookings Institute, Great Lakes Economic Initiative.

[FN 69] Data from Departments of Health in Virginia and Maryland cited Chesapeake Bay Foundation. 2010. On the Brink: Chesapeakes Native Oysters. What it will take to bring them back.

[FN 70] U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki, EPA.

[FN 71] Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in Virginias Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. February 23, 2010.

[FN 72] See draft WIP, page 17.

EXHIBIT 1:

DETAILED RECOMMENDATIONS FOR THE COMMONWEALTH OF VIRIGNIA CHESAPEAKE BAY TMDL PHASE 1 WATERSHED IMPLEMENTATION PLAN [FN 1]

I. Wastewater Treatment Plants

Background

Virginia has made significant progress over the last five years reducing nutrient pollution from 125 of the state's largest

municipal and industrial WWTPs. These "significant dischargers" represent about 95 percent of the WWTP flow to the Bay from Virginia. Virginia adopted revisions to the Water Quality Management Planning Regulations (WQMPs) in 2005 that established enforceable annual TN and TP load limits (or "caps" for these large plants. [FN 2] "Technology regulations" also adopted in 2005 set annual nutrient concentration limits for new and existing plants that exceed specified flow capacities. [FN 3] In 2005 the General Assembly established the NCE to allow the exchange of nutrient credits between plants to help reduce costs and accelerate achievement of the caps and subsequent nutrient reduction goals. [FN 4] A Watershed General Permit (WGP) was developed in 2006 to implement these new programs and establish a 2011 deadline for meeting the caps. [FN 5] In addition, \$1.5 billion in state monies from the Water Quality Improvement Fund (WQIF) and Virginia Resources Authority (VRA) as well as federal assistance from the State Revolving Load Fund (SRLF) were provided over this period to help pay for plant upgrades. [FN 6] Finally, to address future growth, the NCE law and a revision to that law in 2009, require a complete offset of any nutrient pollution from existing significant dischargers that expand and new plants that exceed 1,000 gallons per day (GPD). [FN 7]

The new programs put in place over the last five years represent a substantial increase in program capacity. According to the Virginia Department of Environmental Quality (DEQ), these new efforts have specifically supported 44 plant upgrades and 46 nutrient exchange contracts, which are projected to deliver enough nutrient pollution reductions to meet the 2011 wastewater caps. [FN 8] [FN 9] In total, these efforts are estimated to provide pollution reductions to the Bay of about 6,600,000 pounds TN and 580,000 pounds TP.[FN 10] Note that using these same programs, up to 60 additional plant upgrades could take place after 2011 to help maintain the cap into the future.[FN 11]

Draft WIP

The draft WIP sets the 2005 nutrient caps in the WQMP as the WLAs for this sector. In other words, no additional pollution reductions beyond the existing caps are required of any existing WWTP through 2025.

In trying to meet the TMDL allocations while forgoing additional reductions from WWTP, allocations for other sectors were set based on an "E3" level of treatment, or "everything, everywhere, by everyone," for urban and septic source sectors. This level of treatment was included in materials for the SAG as a theoretical maximum amount of reductions that are possible, not as a level of effort that was realistic to expect from any source sector. EPA guidance was explicit that if a WIP relies on implementation approaching or beyond E3 levels that "EPA expects the Bay jurisdiction to provide documentation supporting the achievement of such an extraordinary level of effort." [FN 12] Although the WIP proposed E3 level of treatment for these sectors, the required documentation was not provided. Further discussion of the proposal to use E3 levels of treatment for the urban runoff and septic source sectors are provided later in this document.

Despite the inclusion of these completely unrealistic implementation levels for urban NPS sectors, the James River basin still failed to meet the 2025 TMDL allocations for TN by 3,300,000 pounds per year (lbs/year) and for TP by 350,000 pounds per year (lbs/year). The draft WIP addresses this shortfall by indicating that a poorly-described expansion of the NCE and/or a potential future revision of the chlorophyll a standard for the lower James River will allow the TMDL allocation to ultimately be met. CBF is on record with our opposition to the Commonwealth's unjustified presumptions that the chlorophyll a standard will be loosened and the TMDL allocations for the James River will be increased. [FN 13] The current chlorophyll a standard is the standard until it is formally changed via the Administrative Process Act-and the TMDL and WIP must be written to meet the current standard. We will plan to participate actively in public elements of the James River Chlorophyll Study or water quality standard revision process should either move

forward.

Some strong programs are in place to address future growth in this sector. However, there are some gaps related to smaller facilities that need to be addressed. Offsets are currently not required for existing plants with a design flow less than 40,000 GPD that are expanding, but will still be under 40,000 GPD. Also not addressed are new municipal WWTPs under 1,000 GPD and industrial plants below 40,000 GPD. The draft WIP mentions both of these deficiencies, but does not commit to actions to address them.

Overall, the Commonwealth's recent success cutting pollution by this sector and the decision to forgo further reductions from this sector and seek E3 reductions from other sectors, leads us to draw three broad conclusions. We discuss these observations in detail below as they help form the basis for our recommendations for how to improve the draft WIP.

First and foremost, the draft WIP must be revised in such a manner to ensure that the TMDL allocations for the James River basin are met. The CWA prevents EPA from approving a TMDL that does not meet water quality standards.

Second, additional pollution reductions from this sector are feasible, reasonable, and cost-effective. These pollution reductions are absolutely critical to help erase the shortfall in the James River basin and help alleviate the lack of reasonable assurance in all basins for other source sectors. Our basis for this position is as follows:

Wastewater has the strongest nutrient pollution reduction program capacity in place compared to the other sectors.

Wastewater is the largest source of nutrient pollution to the James River, contributing half of the nitrogen and a third of the phosphorus pollution. Further, the wastewater flow to the James represents nearly half of the wastewater flow from Virginia to the Bay watershed.

In parts of the Lower James River, chlorophyll a levels are highest during low flow conditions when wastewater discharges play a larger role compared to normal or high flow conditions. Given the large influence that wastewater flows have on the river during these times, further nutrient reductions from WWTP discharges must be part of the solution for meeting the spring/summer chlorophyll a standards in the tidal fresh and lower estuarine segments of this river.

Pursuing further reductions from WWTPs that discharge to the lower James supports the dual goal of helping to meet the chlorophyll a standards in the lower river and to meet the dissolved oxygen and water clarity standards in the James and Bay main stem.

WWTP remain one of the most cost effective nutrient pollution controls available. DEQ recently reported cost for the recent plant upgrades averaged \$6 per pound TN and \$15 per pound TP. [FN 14] There is little question that many of the same citizens-the ratepayers-that are helping to pay for wastewater upgrades, will also end up helping to pay for measures to address the existing urban runoff and septic source sectors. Maximizing cost efficiency for these ratepayers should be paramount.

The level of treatment required in the James River basin is less than what is being required of wastewater dischargers in other Virginia basins. For example, the annual average concentration limits used to set the caps in the WQMP in

2005 for plants in the James and York River basins (6.0-12.7 mg/L TN and 0.5-1.0 mg/L TP), were higher than the more stringent state-of-the-art (SOA) limits used for the Potomac, Rappahannock, and Eastern Shore basins (3.0-4.0 mg/L TN and 0.3 mg/L TP). Further, a provision in the Technology Regulation allows plants to operate above their "concentration base" if it is not necessary to meet their cap.[FN 15] Therefore, the "effective" performance base for plants that discharge to the Lower James River in Hampton Roads ranges from better than biological nutrient removal (BNR, 5.0-8.0 mg/L TN) to less than secondary treatment (20.5 mg/L TN) for TN and BNR or less (1.0-1.5 mg/L TP) for TP. Thus, many of these plants could upgrade to provide anywhere from BNR to SOA treatment to provide additional pollution reductions and establish equitable requirements for plants across river basins.

As of 2009, WWTPs in Virginia that discharge to the Bay watershed were using only 65 percent of their design capacity to set the caps in the WQMP in 2005.[FN 16] This large excess capacity has allowed plants to operate far above their concentration base. These design flows were calculated in 2004 during one of the largest land development booms in Virginia's history. Therefore, it is fair to question whether this capacity truly represents that which is realistically needed by communities for expected economic development in the near future.

Third, the same approach used to deliver pollution reductions from the wastewater sector should be used as a blueprint for achieving more assured reductions from the NPS sectors. The accomplishments of this sector provide clear evidence that significant pollution reductions result when reasonable assurance is provided, in this case, through strong mandates, including a reasonable compliance schedule; significant public funding; and market-based incentive programs. These same steps are necessary if existing NPS reductions are to be realized.

Recommendations

Based on our conclusions above, we offer five specific recommendations for revisions to the draft WIP with respect to WWTP wasteload allocations. These actions are intended to provide significant additional pollution reductions to help achieve the spring/summer chlorophyll a standards in both lower James segments, assist with achieving TMDL goals in the James for both 2017 and 2025, and provide additional reductions to assist in providing a higher level of reasonable assurance that revised pollution allocations in Section IV for the entire Virginia Bay watershed can be met. Additional feasible options for achieving more pollution reductions from large WWTPs are provided at the end of the first recommendation. As noted previously, our recommendations are not the only means to improve the draft WIP; the list of recommendations we present are intended to show the wide range of options available to the Commonwealth to meet the TMDL goals.

(1) Require phased upgrade of 11 large plants in the Lower James River by 2025.

The Commonwealth should require that eleven of the largest municipal WWTPs that discharge to the Lower James River between Chesterfield County and the mouth of the James River upgrade to achieve a 5.0 mg/L TN and 0.3 mg/L TP by 2025.[FN 17] We used a step-wise approach to select WWTPs for upgrade. First we focused on several larger municipal plants that have WLAs based on TN concentrations that exceed BNR treatment for TN (several even approached secondary treatment). This strategy would bring the performance of these very large municipal WWTPs more in line with the performance required of comparable plants in the other river basins. Then we selected municipal WWTPs that have a design flow of 20 MGD or more. We also looked to balance reductions from WWTPs that discharge to both the tidal fresh and lower estuary of the James. And lastly, we took into consideration whether plants had very recently completed an upgrade and deferred those plants for further upgrades until 2025.

Note that this analysis focuses on what plants are authorized to discharge in the WGP and WQMP, in other words, their TN/TP concentration basis and design flow used to set their WLAs in 2005, the most current information available to the public. The best way to approximate potential future reductions in delivered pollution was to only include reductions from installation of new technology that improves upon the TN/TP concentration basis. The current significant excess flow capacity-and the higher TN/TP concentrations it can allow-precludes using current flow and performance to draw meaningful conclusions about what additional pollution reductions may be available in the future. Therefore, this recommendation focuses on what could be discharged under an individual WWTP permit, not what the plants are choosing to discharge today.

Also be aware that we do not have access to the Bay model or scenario builder, so the pollution reductions projected here are estimates. They are solely intended to illustrate that options are available between the approach taken in the draft WIP of not pursuing any further WWTP upgrades through 2025, and the EPA backstop that seeks upgrades by all significant WWTPs that discharge to the Bay to 4.0 mg/L TN and 0.3 mg/L TP. Further, use of the NCE, exchange of TN and TP allocations, and other strategies may allow some of the proposed upgrades to be unnecessary. The absolute bottom line is that for the final WIP to be acceptable it must include a mix of upgrades and other strategies that meet the TMDL allocations.

To first allow a full accounting of new reductions that can be anticipated, Table 1 describes the two Lower James River plant upgrades that are already funded and scheduled to come on-line by 2013 that improve upon the TN/TP concentration performance. It is our understanding based on discussions with DEQ staff that these reductions are not yet counted by EPA as progress through 2009. It is our further understanding that these projected reductions have been considered by the Commonwealth when it states that the overall 2011 goal for WWTPs will be met.

Table 1-Lower James River WWTP Upgrades Anticipated Through 2013 [Please see Exhibit 1, page 6 of the original comment letter (Docket ID 0732.001)]

Table 2 summarizes the additional upgrades recommended to further improve upon performance through 2025.

Table 2-Proposed Lower James River WWTP Upgrades Through 2025 [Please see Exhibit 1, page 6 of the original comment letter (Docket ID 0732.001)]

We estimate that upgrading these eleven significant WWTPs by 2025 can achieve the basin-wide TMDL allocations for the James in 2017 and 2025 and the revised Virginia Bay watershed-wide allocations called out in Section IV. However, there are an array of strategies to achieve further reductions from WWTPs. The following strategies may also be workable:

Require upgrades to significant WWTPs that discharge to the lower James River such that all plants achieve 4.0 mg/L TN and 0.5 mg/L TP. This would require 14 plants to upgrade their TN treatment and seven plants to improve TP performance. Reductions in pollution delivered to the Bay could be reduced by approximately 5,253,000 lbs TN and 245,126 lbs TP.

Mandate upgrades such that all significant WWTPs watershed-wide achieve 4.0 mg/L TN and 0.3 mg/L TP. This approach would be consistent with the proposed EPA back-stop action for WWTPs.

Require upgrades such that all significant WWTPs watershed-wide achieve 3.0 mg/L TN and 0.3 mg/L TP.

Require upgrades of significant WWTP plants to 3.0-4.0 mg/L TN and 0.3 mg/L TP that serve Phase 1 MS4 communities or both Phase 1 and 2 MS4 communities.

Require upgrades of plants in the York River basin from 6.0 mg/L TN and 0.5 mg/L TP to at least 5.0 mg/L TN and 0.3 mg/L TP to achieve nutrient treatment more consistent with WWTPs in the other river basins.

The existing Virginia Pollutant Discharge Elimination Program (VPDES) and NCE program are in place to help facilitate these recommended upgrades. However, regulatory changes and significant funding will be needed to accomplish these recommendations. Existing funding for WWTP upgrades is already \$130 million in arrears, so existing past funding allocations are not available to support new programs.[FN 18]

The new WLAs necessitated by these upgrades would need to be included in the next WGP due by January 1, 2012 and in the WQMP.[FN 19] We recognize that meeting this requirement might be logistically challenging for some WWTPs. However, to advance the type of pragmatic upgrade schedule listed above to help meet these new WLAs in light of the existing regulatory guidelines regarding compliance within the VPDES permit cycle, Virginia could propose the development of a permit for only those WWTPs subject to a chlorophyll a standard, subject to public notice and comment and followed by a judicially enforceable agreement, that includes a binding compliance schedule that will meet the requirements set forth in the new Bay TMDL by 2025.

Obtaining consistent financial assistance from the legislature to pay for mandated upgrades through 2025 is absolutely critical. General Fund appropriations, bond authority, and other options are needed. A high cost-share percentage (at least 60 percent) will also be vital to ensure an equitable cost-sharing between state and locality budgets. The Commonwealth could consider prioritizing funding to WWTP projects that are upgrading nutrient treatment capabilities or expanding to take smaller plants, onsite systems, or other pollution sources (landfills, for example) off line, over projects that are only expanding capacity to support future development. WWTP pollution reductions are supported by strong existing program capacity (in terms of regulatory mechanisms, staffing, and tracking), are some of the most cost-effective available, are supported by millions of rate payers, and create well-paying construction and engineering jobs. While year-by-year funding of nearly \$1 billion via the General Fund and bond packages has carried the program since the late 1990s, pursuing a consistent funding source would provide better surety to local WWTPs that are asked to carry increased pollution reduction responsibilities.

The NCE also has the potential to help accomplish these reductions faster and at lesser costs. A full discussion of an expanded NCE is provided later in this section.

(2) Retire five percent of existing "nutrient credits" currently tied to excess capacity in WLAs for WWTPs in the James River Basin by 2011.

Virginia should permanently retire five percent of the existing "nutrient credits" tied to the currently unused flow capacity from all 27 municipal WWTPs in the James River basin. This action will provide an immediate reduction in authorized delivered nutrient pollution by 572,000 lbs/yr TN and 50,000 lbs/yr TP. Again, focusing reductions on the James Basin can further help ensure adequate reductions are provided to meet the chlorophyll a standard. Other options include

retiring five percent of the nutrient credits tied to excess flow watershed-wide (delivering pollution reductions of approximately 1,940,000 lbs TN and 177,000 lbs TP) or retiring ten percent of the nutrient credits tied to excess flow Virginia Bay watershed-wide (approximately 948,000 lbs TN and 88,000 lbs TP).

CBF is aware that WWTP capacity is a significant local tool used to attract economic development, and the prospect of pulling back existing WLAs may not appear immediately attractive, or even fair. Keep in mind that should this capacity- or additional capacity-be needed by localities in the future as the economy recovers, the NCE was specifically created to help accommodate future WWTP pollution loads. Any expansions to the NCE, including additional authorities and mandates to compel buying and selling, are likely to be complete by the time the retired capacity is needed.

Revisions to the next WGP and WQMP would be necessary to achieve these reductions. Any permanent reductions in design flow, and resultant reduction in WLAs, provides pollution reductions at no new costs to the Commonwealth. Using new funding sources to pay for WWTP upgrades and forestalling use of these existing nutrient credits now, is akin to borrowing money from a friend to pay a debt when you have sufficient money in your bank account to pay the debt. If the Commonwealth is serious about pursuing the most cost-effective solutions, immediately retiring a modest amount of existing nutrient credits is a useful approach.

(3) Require upgrades by the largest existing non-significant municipal WWTPs by 2025.

The Commonwealth should require upgrades of existing non-significant WWTPs that discharge greater than or equal to 200,000 GPD to achieve to BNR. This would require 37 plants to achieve 8.0 mg/L TN and 1.0 mg/L TP by 2025. These plants are all above the fall line, as plants below the fall line that discharge more than 100,000 GPD already must meet more stringent treatment standards. A plant that treats this volume of wastewater is not small; it supports approximately 2,000 households. We believe it is more than appropriate to ask these large non-significant plants to upgrade some time in the next 15 years. Further, this action will benefit the Bay, and will also help comply with existing and planned mandates to improve water quality in local streams. For example, nutrient criteria for freshwater streams are scheduled to be promulgated by 2013 for wadeable streams and 2014 for non-wadeable streams. [FN 20]

Table 4 below describes the plants that should upgrade and a rough estimate of nutrient pollution reductions that can be realized through the upgrades.

Table 4-Upgrades by Largest Non-significant Dischargers [Please see Exhibit 1, page 9 of the original comment letter (Docket ID 0732.001)]

Amendments to the WQMP and Technology Regulation would be necessary to achieve these reductions. Further, a consistent source of financial assistance from the legislature to pay for mandated upgrades through 2025 is essential. A high cost-share percentage (at least 75 percent, if not more) will be needed, as most of these plants are operated by small towns.

(4) Install infrastructure to reuse two percent of municipal WWTP flow by 2017.

The state should create statewide incentives via the Code to facilitate the installation of infrastructure and nutrient management plan (NMP) implementation to support reuse of least two percent of Virginia Bay watershed-wide municipal flow. Based on a total municipal WWTP flow of 585 MGD and annual average concentration limits of 5.0 mg/L

TN and 0.5 mg/L TP, reuse of 11.7 MGD could generate pollution reductions of 178,000 lbs/yr TN and 17,800 lbs/yr TP.

Wastewater reuse is particularly important in areas of the state that are vulnerable to drought conditions. Wastewater could be directed for irrigation of golf courses, recreational fields, and open spaces, as well as use for cooling water or other industrial uses. Any reuse as irrigation must be applied in accordance with NMP requirements to ensure zero discharge of nutrients to ground or surface waters. Any nutrients discharged in excess of NMPs or that pass through an industrial process must be removed from the reduction created.

As costs to install and maintain pipes and pump stations to relocate reuse water can be a considerable barrier, changes to the Code would be required to authorize grants, low interest loans, business tax credits, and/or the authority for localities to offer their own tax credits, fee waivers, or other incentives to compel interest. Efforts to pursue this level of reuse should be pursued immediately, perhaps through targeted incentives and outreach to golf courses.

(5) Require offsets of new nutrient pollution from small municipal and industrial WWTPs.

The Commonwealth should require nutrient pollution offsets from new municipal WWTPs that discharge less than 1,000 GPD (usually single-family homes) and new industrials that discharge less than 40,000 GPD. This action will help ensure that the aggregate load from new and expanding residential development and industry will not erase progress elsewhere. Amendment of the nutrient NCE law would be required to accommodate this new requirement. It may be appropriate to create an in-lieu fee component of the trading program to collect a standard fee to mitigate the smaller pollutant loads generated by these sources, as well as on-site septic loadings discussed later in this section. An expanded NCE is discussed later in this section.

Conclusion

EPA's "backstop" allocations include upgrades to 4.0 mg/L TN and 0.3 mg/L TP by all 39 municipal and industrial WWTPs in the James River basin. Virginia has the flexibility to pursue the modified approach outlined in the preceding section that we believe provides additional pollution reductions that are feasible, equitable, and cost-effective. Types of actions recommended in this section may be preferable to the region-wide approaches available to EPA.

II. Agriculture

Background

Over the past few decades, Virginia farmers have made significant progress in reducing nonpoint source pollution from agriculture by installing BMPs. One of the most promising aspects of on-farm conservation in Virginia has been the success of federal and state cost-share programs in driving BMP implementation. Farmers have consistently demonstrated the willingness to invest their own resources to install BMPs when cost-share funding is available. Despite historic levels of funding for the federal cost-share programs in Virginia, there is still a backlog of applications. Additionally, there are many farmers who choose not to participate in cost-share programs but who do install BMPs using their own financial resources.

Also, Virginia has a strong history of collaboration amongst stakeholders to develop innovative projects that include demonstrating new technologies, as well as projects designed to accelerate BMP implementation in targeted

watersheds and in targeted communities. These efforts are delivering additional financial and technical resources to farmers and demonstrating innovative technologies and practices such as: demonstration of an on-farm portable pyrolysis unit that converts poultry litter to bio-oil, delivery of on-farm technical assistance and private funding resources to the Old Order Mennonite communities for BMP implementation; and delivery of technical assistance and equipment to help farmers better utilize fertilizer and avoid over-application.

However, despite these efforts, Virginia still has a long way to go to reduce nutrient and sediment runoff from agriculture to acceptable levels. The draft agriculture scoping scenario 2008 implementation levels presented to the agriculture work group on July 8, 2010, illustrates that for practices considered high priority, implementation levels as of 2008 are far below the proposed goals. [FN 21] Although this estimate currently does not include data on voluntary BMPs (i.e. paid for without federal or state cost-share information), the data on BMP implementation using cost-share funds indicates agriculture still has a long way to go. For example, forest or grass buffers of at least 35 feet or more have been installed on just nine percent of cropland, 16 percent of pasture acreage, and zero percent of hay acreage.

While CBF supports the effort currently underway, as directed by 2010 Senate Bill 346 and Code amendments to 2.2-220.3, to establish a program for tracking BMPs installed without cost-share funding, even when these voluntary practices are enumerated, it is likely that the data will reflect we have a way to go towards meeting agriculture nutrient and sediment reduction goals.

A recently released draft report from the U.S. Department of Agriculture (USDA) assessing the effects of conservation on cultivated cropland in the Chesapeake Bay watershed (USDA 2010 Report) further illustrates that existing programs have not made near enough progress in protecting water quality. [FN 22] This report considered all conservation practices currently implemented, including practices implemented voluntarily, without federal or state cost-share assistance. The report found that 81 percent of harvested cropland in the Bay watershed lacks some or all conservation measures necessary to reduce nutrient and sediment loss to tolerable levels. The report also found that 81 percent of harvested cropland failed to meet nutrient management planning goals for rate, timing, and placement of fertilizer application. Lack of NMP development and implementation, and subsequent excessive loss of fertilizer nutrients, costs Virginia farmers millions of dollars in lost revenue every year. While soil erosion control practices are widespread, 26 percent of crop land still has excessive sediment loss from fields and requires additional erosion control practices. Existing programs have also failed to protect lands most vulnerable to nutrient and sediment loss-47 percent of land in the watershed is considered highly vulnerable to pollution and is classified as "critically undertreated." While existing programs have made some progress, it is unreasonable to expect they will achieve necessary agricultural nutrient reduction goals.

Draft WIP

The draft WIP proposes ambitious goals for widespread implementation of BMPs on farms. For example, the draft WIP proposes 90 percent implementation levels for riparian buffers on cropland, pasture, and hay acreage by 2025. Implementation of NMPs on cropland is anticipated to increase from 51 percent to 95 percent, and no-till farming is projected to increase from 55 percent to 90 percent by 2025.

The agricultural sector section of the draft WIP relies almost exclusively on existing programs and authorities in addition to a new "expectation" that farmers will widely adopt BMPs, without any concrete drivers proposed to accomplish these ambitious goals. There are no estimates of cost-share funding needed to achieve the proposed reduction, nor is there a

plan to secure the funding. The draft WIP also lacks new program capacity--the proposed rules, regulations, permits, or other enforceable, binding measures--to achieve the proposed pollution reduction goals. There is also no schedule for implementation, including no two-year milestone goals.

Recommendations

Below we recommend eight specific revisions to the agriculture section of the draft WIP that will help provide a high level of reasonable assurance that the revised pollution allocations for the agricultural sector in Section IV will be met. Note that these allocations are set based on a Level 3 level of effort included in the August 24, 2010 SAG discussion draft.

(1) Develop financial incentives to support enhanced agricultural BMP implementation by 2011.

The availability of cost-share funding is a critical component for the agricultural community to achieve BMP implementation goals. As such, the WIP should include an estimate of the total cost to fund the Virginia Agricultural BMP Cost-Share Program to levels sufficient to ensure adequate cost-share is available for implementation of the practices proposed in the WIP. Also, the WIP should include a plan for securing these funds including legislative proposals.

According to the 2009 report prepared by the Virginia Department of Conservation and Recreation (DCR) [FN 23] (based on the tributary strategy BMP implementation goals), annual funding needs for the Virginia Agricultural Cost-Share Program over the next 15 years total \$1,123,000,000, statewide. Of this total, eight percent will support Soil and Water Conservation District (SWCD) technical assistance, 55 percent will support agricultural BMPs in the Chesapeake Bay basin, and 37 percent will support BMPs in the Southern Rivers. Funding estimates for agriculture BMPs in the Chesapeake Bay watershed total approximately \$620 million and are listed by year in Table 3.

Table 3--Chesapeake Bay Watershed Ag BMP Cost-share Funding Projected Needs [Please see Exhibit 1, page 13 of the original comment letter (Docket ID 0732.001)]

These funding levels include the funding needed to accomplish levels of reduction from nutrient management planning and implementation on 90 percent of cropland and hayland in the Chesapeake Bay watershed. This level of implementation reflects what would be accomplished if NMPs were developed and implemented on all farms that apply fertilizer or manure to more than 100 acres.

In addition to traditional cost-share, CBF recommends an expansion of the Virginia tax credit program to include transferable tax credits similar to the Pennsylvania Resource Enhancement Program (REAP). [FN 24] Producers often owe few, if any, state taxes. The REAP program allows farmers to sell tax credits to other tax payers, similar in concept to the Virginia conservation easement tax credit program outlined in the Virginia Land Conservation Incentives Act of 1999. [FN 25] This would require new legislation. CBF recommends capping the proposed transferable tax credit program at \$10 million per year.

CBF also supports the promising idea in the draft WIP to consider amending §58.1-3231 to require certain BMPs to be used on land enrolled in local use value assessment and taxation programs. These practices should include: implementation of soil conservation and nutrient management plans, establishment of 35-foot or greater permanent

grass or riparian buffers, livestock stream exclusion, and if applicable, appropriate barnyard management.

(2) Expand regulatory drivers for BMP implementation in existing programs through 2025.

Currently, the only water-quality related regulatory drivers governing Virginia agriculture apply to:

Confined animal feeding operations (CAFOs) with more than 200 animal units of poultry or 300 animal units of livestock and liquid manure systems (Virginia Pollution Abatement Permit Regulation [FN 26]);

Fields receiving biosolids (Biosolids Use Regulations [FN 27]); and

Farms in regions covered by the Chesapeake Bay Preservation Act (CBPA) Regulations. [FN 28]

We recommend the following changes to these existing regulatory programs to provide additional program capacity to deliver nutrient pollution reductions.

(a) Virginia Pollution Abatement Permit for Livestock Animal Feeding Operations

According to the 2007 National Agricultural Statistics Survey, there are over 1,100 dairies operating in Virginia and only 80 of them are currently covered by Virginia Pollution Abatement (VPA) permits for animal feeding operations.[FN 29] We recommend expanding coverage to facilities with herd sizes greater than 100 animals by 2017 (which would cover approximately 34 percent of Virginia dairies), and 50 animals by 2025 (covering approximately 55 percent of Virginia dairies). Developing a general permit for smaller facilities would require legislative change to the existing code (Chapter 32, Virginia Pollution Abatement Permit Regulation).

Expanded VPA coverage for smaller dairies will address barnyard management issues, as well as ensure manure is land-applied appropriately. The importance of manure management is illustrated by the USDA 2010 Report that found that 70 percent of the acreage categorized as having the lowest level of conservation treatment for nitrogen management receives manure as fertilizer. In contrast, less than six percent of the acreage categorized as having a high level of nitrogen management receives manure. The USDA 2010 Report further states that the most critical conservation concern in the region is nitrogen loss through subsurface pathways, most of which eventually discharges to surface waters, and that about 65 percent of cropped acres require additional nutrient management to address excessive levels of nitrogen loss to groundwater. Ensuring dairy manure is land-applied appropriately is critical for protecting local and regional surface and ground water quality.

(b) Biosolids Use Regulation

Over 50 percent of the biosolids land-applied in Virginia are imported from out-of-state facilities.[FN 30] By 2017, Virginia should eliminate the use of phosphorus index (P index) for fields receiving biosolids. Instead, biosolids should be required to be land-applied according to soil test nutrient recommendations. Also, require the same setback for riparian areas as required for poultry litter (100 feet with no permanent vegetative buffer, and 35 feet with a permanent vegetative buffer). [FN 31] In addition, eliminate land-application of biosolids in December, January, and February and eliminate application to saturated, frozen, or snow-covered ground. The 2017 deadline will allow for municipal wastewater treatment facilities to install waste-to-energy facilities that convert excess biosolids to renewable energy.

Changes to the biosolids regulations could be made administratively, without legislation.

(c) CBPA

Require all agricultural land uses in counties covered by the CBPA (not just agricultural land in the resource protection and/or management areas) to comply with a minimum buffer requirement of 35 feet, and minimum conservation standards including development and implementation of soil conservation plans and Virginia certified NMPs. Currently, agricultural land in the resource protection area in production prior to passage of the CBPA does not have to comply with the buffer requirements. Also, the buffer requirements need to be updated with research conducted over the last two decades that indicates that a 35-foot buffer is the minimum buffer width necessary for sediment and nutrient reduction to surface waters. [FN 32] Last, we recommend that DCR support local governments in efforts to enforce provisions of the CBPA by dedicating staff to conduct random inspections using the same inspection protocols currently in place for the Virginia Agricultural Cost-Share Program. Violations should be reported to local governments for enforcement. Chesapeake Bay Act compliance measures should ensure that local governments are enforcing agricultural provisions of the CBPA.

(d) Virginia Nutrient Management Standards and Criteria

The USDA 2010 Report previously mentioned illustrates the importance of development and implementation of NMPs on cropland, and the lack of widespread implementation of plan recommendations (NMPs are either not developed or improperly implemented on more than 81 percent of cropland in the Bay watershed). This represents a two-fold loss for both water quality and farm profits. Proper implementation of NMP regulations avoids over-application of fertilizer, and prevents nutrient pollution.

As such, Virginia should place a strong emphasis on NMP development and implementation, requiring implementation on farms with more than 100 acres that receive nutrients by March 1, 2015. With respect to cropland, this would cover almost 90 percent of Virginia's harvested cropland and affect just over 5,000 Virginia farmers, many of whom already are implementing certified nutrient management and soil erosion control plans to various degrees. Further, DCR and NRCS should work together to ensure that Virginia certified nutrient management planners understand that NMPs are living documents that will likely require revision on an annual, if not semi-annual, basis. Regular communication with their clients is essential to ensure that the plan is up-to-date and to address problems with implementation. This can be accomplished via training and scheduling cost-share payment reimbursement to planners that is tied to regular plan updating and consultation with farmers through the lifespan of the plan.

Additionally, CBF is also concerned that the phosphorus site index (P Index) is not sufficiently protective of water quality. While the P Index is a valuable tool in identifying regions at high risk for phosphorus loss, soil scientists that developed the P Index state in no uncertain terms that the P Index is not an adequate tool to address regional imbalances in manure.³³ They strongly recommend that all producers be encouraged to apply manure at rates designed to meet plant uptake requirements and avoid over-application of phosphorus. They note that continued reliance on the P Index in areas where manure is produced in excess of crop needs is not sustainable in the long term, and will lead to an eventual build up of soil phosphorus to levels where no further phosphorus can be applied.

In light of that, CBF recommends that the Virginia Nutrient Management Standards and Criteria be modified to phase out the use of the P Index to justify over-application of phosphorus (beyond soil test recommendations) by 2017 for

biosolids application and poultry litter, and by 2025 for other livestock. [FN 34] In the interim, plans developed for soils with high phosphorus should include a long-term strategy and proposed implementation timeline for reducing soil phosphorus to levels that protect water quality and allow for application of phosphorus at rates recommended by soil test results.

Soil scientists also recommend that state P Indices be correlated with local water quality requirements. [FN 35] As such, the Virginia P Index should be recalibrated to take into account pollution reduction goals for P proposed in the Virginia Bay TMDL. Specifically, the minimum criteria for edge-of-field P runoff and leachate should be that nutrient concentrations in receiving waters not cause water quality impairment (algae, aquatic habitat, etc.). The tool should also identify those fields or situations where even with the best conservation, no additional P should be applied.

CBF is also concerned that threshold pre-screening procedures used in Virginia allow for application of phosphorus to soils already at risk for increased phosphorus loss to surface waters (for example, fields close to streams), without the benefit of running the P index to identify critical source areas where more intensive management is appropriate. Research indicates that risk for phosphorus loss in surface runoff and leaching begins to increase in soils that exceed a 20 to 30 percent degree of phosphorus saturation (DPS) threshold. [FN 36] As such, CBF recommends that the P index should be used to determine phosphorus application rates for all soils that test greater than 20 percent DPS and for fields located within 150 feet of surface waters.

CBF also recommends that the Virginia Nutrient Management Standards and Criteria regulations be modified to include requirements to prevent erosion from exceeding the soil erosion tolerance level ("T"). The USDA 2010 Report emphasizes that "nutrient management practices need to be paired with erosion control practices to obtain net reductions in soluble nutrients." As such, NRCS is currently considering the addition to the NRCS Nutrient Management Code of general requirements that soil erosion rates not exceed the tolerance factor (Code 590) standard. [FN 37] This approach makes sense because soil fertility, nutrient availability, and phosphorus transport are all directly related to soil erosion.

In addition, because nutrient transport to surface waters is strongly correlated with the distance from the field to surface water, we recommend that the Virginia Nutrient Management Standards and Criteria also include a requirement for riparian buffers of at least 35-feet in width that complies with NRCS standards for grass buffers or forested buffers (NRCS 391 Riparian Forest Buffer or NRCS Code 390 Riparian Herbaceous Cover Standard). Research has established that a 35-foot buffer is the minimum width necessary to provide surface runoff remediation. [FN 38] Forested buffers are particularly valuable and increase in-stream nitrogen processing by two-to-eight fold increase over contiguous riparian areas with grass buffers. [FN 39] A mandatory buffer will effectively act as a setback for all forms of applied fertilizer. This would level the playing field for poultry litter, which has a mandatory 35 feet application setback from a stream if a permanent, vegetated buffer is established, or 100 feet otherwise. As such, it is appropriate to require fertilizer application setbacks as well as the establishment and maintenance of buffer areas to provide remediation of surface water runoff from fields receiving nutrients as an integral part of nutrient management planning in Virginia.

(3) Require livestock stream exclusion by 2017.

The proposed adoption rate of livestock stream exclusion on 95 percent of Virginia's pastures proposed in the draft WIP is unrealistic without a regulatory driver. State code should be revised to require the following:

Require livestock stream exclusion by 2017 when local TMDL implementation plans for bacteria, general benthic, sediment, nitrogen, or phosphorus list livestock as a causative factor in the impairment, and where livestock stream exclusion is required to achieve water quality goals; and

Require livestock stream exclusion for farms with herd sizes greater than 20 cows between 2017 and 2025. This would apply to approximately 42 percent of cattle farms and result in exclusion of 94 percent of Virginia's cattle from streams.

Note that DCR distributed a draft piece of legislation to SAG members in August 2010 that included livestock exclusion requirements, but it was not included as part of the draft WIP.

(4) Create a safe harbor provision for Virginia farms by 2011.

The draft WIP proposes that a "resource management plan," as defined by NRCS, will be deemed to be in compliance with the draft WIP and any associated law or regulation. First, it should be noted that this language does not suggest that compliance with the draft WIP is associated with implementation of the plan. The current language suggests that merely having a plan constitutes compliance. Further, it is also important to note that NRCS does not have a definition for the term "resource management plan."

While NRCS does have a number of definitions for various types of conservation plans, CBF has a concern that these lack the performance standards necessary for ensuring nutrient and sediment reductions. For example, the most basic conservation plan is simply a record of the farmer's decision and is required for all NRCS-funded practices. Any farmer who has received cost-share funding from NRCS has a conservation plan on file. The basic NRCS conservation plan could be written for one field out of twenty fields associated with the farm, and include a description of one BMP that the farmer has agreed to implement, out of a number of BMPs that might be recommended and necessary to protect water quality. Clearly, obtaining a conservation plan does not provide any assurance that appropriate BMPs are being implemented.

NRCS does offer more far-reaching conservation planning services, however, widespread implementation of more comprehensive conservation plans (such as a resource management system) can take several days (or longer) to develop for a whole farm, and would require a significant investment in staff.

While comprehensive conservation planning should be encouraged, given the logistics of developing plans for over 40,000 farms in Virginia, the more simplified approach outlined below will accomplish the dual goals of providing performance-based farm-specific planning tools and Bay TMDL compliance.

Agricultural producers in compliance with all the applicable planning and scheduled implementation requirements of the following could be deemed to be in compliance with the WIP:

Applicable federal and state permits and laws;

Implementation of a soil conservation plan that meets NRCS criteria that reduces soil erosion to at or below the soil loss tolerance level (T), as defined by NRCS, for each field on the farm;

For crop, hay, or pasture land receiving nutrients, implementation of a NMP written by a certified Virginia nutrient

management planner. When manure or poultry litter nutrients are used, this must include manure storage necessary to ensure appropriate timing of manure application as specified in the NMP;

Establishment of a winter cover crop, either for production (Virginia Agricultural Cost-share practice SL-8H) or soil erosion protection and nutrient removal (Virginia Agricultural Cost-share practice SL-8 and SL-8B);

Creating a permanent 35-foot vegetated (either grass or forest) riparian buffer that meets NRCS practice standards (NRCS 391 Riparian Forest Buffer or NRCS Code 390 Riparian Herbaceous Cover Standard);

Livestock stream exclusion;

Properly protected barnyards that employ BMPs necessary to prevent manure and runoff from confinement areas from entering streams and waterways.

In order for this safe harbor provision to be applicable, the state will need to develop some means of verifying that these BMPs are being properly implemented and maintained.

Note that it is important to clarify that implementing these provisions will secure producers with a safe harbor for Bay TMDL compliance only-there may also be local stream TMDLs that need to be addressed and as such, local governments may need to pass additional ordinances as may be necessary to protect local water quality.

(5) Expand enforcement of existing and proposed programs by 2011.

The Commonwealth should immediately expand enforcement of the existing agricultural programs described below in order to realize new pollution reductions.

(a) Animal Feeding Operations (AFOs) that discharge manure to surface waters are in violation of state law. [FN 40] DEQ has existing authority to address facilities violating this rule. Virginia should evaluate whether existing staff levels are sufficient to accomplish this goal. Staffing may need to be increased by two or three persons in high-density production areas of the Commonwealth, primarily the Shenandoah Valley. Increased enforcement of Virginia regulations will mean it will be less likely for EPA to intervene and expand coverage of the EPA Concentrated Animal Feeding Operations (CAFO) Final rule [FN 41] to smaller facilities. It is in the dairy industry's best interest to ensure Virginia takes control of correcting these problem facilities, as EPA has no flexibility with respect to CAFO rule enforcement, whereas Virginia has the option to allow for a case-by-case determination of the implementation schedule for corrective actions.

(b) Enforcement of proposed NMP recommendations, livestock exclusion, and CBPA agricultural requirements should be conducted by DCR staff using the random spot-check approach currently used to verify Virginia Agricultural Cost-Share Program BMP implementation. This would assist local governments in enforcing agricultural provisions of the Bay Act and help to ensure enforcement is uniform across the region.

(c) Agricultural producers participating in environmental stewardship programs that include third party verification (using protocols approved by DCR) should be given the lowest priority for inspections.

(d) The Virginia Agricultural Stewardship Act (ASA) is currently under-utilized and under-staffed. With only one staff person, and investigation of complaints only when they are reported by the public, the ASA fails to achieve its potential. Specific limitations of the ASA include:

The ASA is complaint driven and thus relies on members of the community to "turn in" their neighbor. Given the risk to an individual's standing in the community and fear of repercussions, understandably, people are reluctant to file a complaint, even where there are egregious water quality problems;

The ASA is not designed to handle issues such as over-application of manure because it is difficult to "prove" water pollution, even when it is clear that manure is being handled inappropriately; and

Timelines for complying with a corrective action plan are too lenient-up to 18 months, with a possible six month (or longer) extension from the Commissioner.

The program is not sufficiently staffed or effectively utilized as a compliance measure, or as a deterrent. As such, CBF recommends the following changes to the ASA:

Rather than requiring a report on a violation and a subsequent investigation, an ASA violation should be triggered automatically for failure to implement practices outlined in local TMDL implementation plans, failure to install riparian buffers of 35 feet or more, and for failure to implement NMP or livestock stream exclusion requirements;

Staff levels should be increased;

Timeline for implementation of the corrective action plan should be shortened, especially for egregious water quality problems and repeat offenders;

A fine structure should be established in Code, rather than being left to the Commissioner's discretion;

A specific timeline for Virginia Department of Agriculture and Consumer Services (VDACS) investigations should be established to ensure that violations are addressed in a timely manner; and

Owners of land rented to farmers should be held equally responsible for a violation and for ensuring the problem is addressed.

Note that farmers complying with the previously recommended Safe Harbor provisions would be exempt from additional requirements to meet Bay TMDL goals, but may have to implement practices necessary to protect local water quality. As such, they would not be exempt from ASA violations.

(6) Develop alternatives to land application of manures.

Hand in hand with expansion of existing regulatory programs and phasing out the over-application of manure phosphorus, we recommend that the Virginia WIP propose a strategy for increasing alternatives to land application, including clean technologies that convert manure to saleable fertilizer and/or renewable energy. With respect to manure-to-energy technologies, Virginia should pursue technologies that avoid simply transferring excess nutrients

from water to air pollution. The fate of nitrogen associated with manure-to-energy technologies is particularly of interest, as nitrous oxide emissions often associated with converting manure or poultry litter to energy via thermochemical conversion technologies can also cause water pollution, as well as ozone formation. It is also important to consider that these approaches may require a public investment-- particularly for dairy manure, which is not economically feasible to transport over long distances.

(7) Reduce ammonia emissions from animal feeding operations.

Virginia's WIP should also focus on reducing ammonia emissions from animal feeding operations. Recent research indicates that the total ammonia emission rate for broilers including losses in-house, during storage, and following land application, is 0.07 pounds of TN per bird.⁴² Virginia produces approximately 241 million broilers each year (not including turkeys and laying hens), which could potentially release almost 17 million pounds of TN to the atmosphere. Once in the atmosphere, ammonia is subject to both wet and dry deposition and has been demonstrated to be a significant source of nitrogen pollution in coastal rivers and estuaries. [FN 43] Existing BMPs that reduce the loss of ammonia from poultry production should be fully utilized--particularly the use of poultry litter amendments at rates recommended for maximum ammonia gas reduction. Additionally, increasing implementation of ammonia-control technologies and BMPs, including improved house design, feed management, and other approaches that reduce emissions and/or capture ammonia, should also be considered.

(8) Offsets for new growth.

For existing CAFOs, Virginia should assign a WLA for loads from (i) CAFO production areas, assuming standard BMPs are in place, and (ii) land-application areas, assuming a NMP is in place. Purchase of nutrient offsets should be required for any discharge from a CAFO in violation of a permit (i.e. runoff from a field where manure was applied inappropriately according to the NMP, where manure was applied without an NMP, or an unpermitted point source discharge from a production area).

For new and expanding CAFOs, complete offset for all loads from production areas and land application should be required. In other words, these operations do not get a "free" allocation for any discharge from properly managed production areas and NMP lands. However, because the aggregate loading from animal agriculture is not expected to grow significantly in the future, we support the concept of reserving "allocations" from any existing animal agricultural operations/acreage that are taken out of production for future use as offsets by existing CAFOs that expand, or new CAFOs that come on-line.

With respect to new or expanded loadings from other agricultural operations that may grow, such as turf farms or nurseries, DCR should develop an assessment by 2017 to determine whether growth is occurring in non-permitted agricultural operations and whether an offset requirement needs to be established. Alternatives to purchasing offsets could be the installation of BMPs necessary to reduce nutrient and sediment runoff to baseline pre-development levels.

Conclusion

Full implementation of these recommendations will provide the level of reasonable assurance needed to achieve pollution reductions from this source sector in the revised pollution allocations based on a Level 3 level of effort included in Section IV. These recommendations recognize the agricultural community's desire for clear expectations and

commitment to widespread adoption of basic BMPs in a manner that avoids a one-size-fits-all approach.

Absent adoption of these recommendations or other similar approaches that will provide assurance that agricultural sector goals will be met, CBF recommends lowering the pollution reduction expectations for the agricultural sector, and increasing pollution reduction expectations for the WWTP source sector.

III. Stormwater

Background

Virginia has developed numerous programs to address discharges of runoff from urban and suburban lands and industry (collectively "urban runoff") to surface waters. The Virginia Erosion and Sediment Control Law, Erosion and Sediment Control Regulations, and Erosion and Sediment Control Certification Regulations arose beginning in the 1970s to control the discharge of pollution from active land-disturbing activities. [FN 44] [FN 45] [FN 46] The pollutants of concern in urban runoff include sediment, nutrients, and other pollutants, as well as, the peak flow rate, volume, and timing of runoff. The Virginia Stormwater Management Act, Virginia Stormwater Management Permit Regulations (VSMP), and the CBPA and Regulations came about in the 1990s to control the discharge of these same pollutants from active and finished private development (or "post-construction" activities), municipal separate storm sewer systems (MS4s), and industrial activities.[FN 47] [FN 48] [FN 49] [FN 50] Virginia issues VPDES individual or general permits to these categories of discharges. Urban runoff from private active and post-construction activities are covered under the five-year Construction General Permit, discharges from MS4s are covered by individual permits (larger "Phase 1" communities") or a five-year general permit (smaller "Phase 2" communities), and industrial releases are covered by a five-year general permit. [FN 51] [FN 52] [FN 53] Lastly, the Code provides some authority under local planning, subdivision, and zoning programs to take actions that impact urban runoff.

Despite the program capacity already in place to address this pollution source sector, urban runoff has become a principle reason that thousands of river miles across the state and the entire Bay remain polluted. Statewide, 1,570 stream miles are impaired because of urban runoff. [FN 54] Many urban and suburban streams are falling apart, subject to hazardous flooding, clogged by sediment and trash, and/or are largely devoid of native aquatic life. These streams help make up the 100,000 streams that feed the Bay. Urban runoff is responsible for ten percent of the TN, 17 percent of the phosphorus, and 15 percent of the sediment that pollutes the Bay and its rivers. [FN 55] [FN 56] Reports from EPA and the U.S. Geological Survey have concluded that efforts to clean the Bay are losing ground specifically because progress reducing pollution from other source sectors is being offset by increased urban runoff pollution. [FN 57] [FN 58] While the existing program capacity, proactive dischargers, and new technologies helped reduce pollution from individual sites since between 1985 and 2005, the sheer pace at which farms and forests were converted to development has caused the "aggregate" pollutant loading over this same period to increase by 16 percent. [FN 59] It is this total pollutant loading that fuels impairment of the Bay; thus the Bay is facing significant problems moving forward if this pollution source sector is not arrested.[FN 60]

Draft WIP

The draft WIP proposes extremely aggressive allocations for this pollution source sector. As noted earlier, the Commonwealth calculated reductions for each pollution source sector from "E3" treatment and two levels of greatly enhanced treatment that are less stringent than E3.61 For urban runoff, Level 2 called for retrofit of 20-25 percent of

impervious surfaces and 20 percent of pervious surfaces, while Level 3 included retrofit of 40-50 percent of impervious and 20 percent of pervious. [FN 62] E3 would involve retrofit of 100 percent of existing urban lands. The urban runoff allocations for the James, Rappahannock, and York River basins are set at "E3." Specifically, for TN, the James and Rappahannock were set based on E3, and for TP, the James and York were set based on E3. The urban allocations for TN in the Potomac and York and for TP in the Rappahannock are also aggressive, set to be more stringent than Level 3 ("Level 3+"). The remaining three basin/pollutant combinations are set at Level 3.

As discussed at the outset of this section, it is clear that Virginia's existing urban runoff programs have so far been incapable of arresting stormwater's growing impact on the Bay. With that said, these programs are in no way sufficient to achieve the E3 level of treatment posited in the draft WIP. Frankly, we find it unlikely that any combination of mandates, funding, and incentives could provide reasonable assurance for achieving E3 levels of implementation from this sector. The shear cost, legal barriers, and logistics involved make E3 completely unrealistic at the basin-level.

We also feel strongly that existing programs cannot provide reasonable assurance that a level of increased BMP implementation can be achieved that will deliver reductions in pollution from this sector. Outdated provisions in the state erosion and sediment control, CBPA, and urban runoff programs, and the lack of numeric pollution reduction requirements and deadlines to meet water quality standards in existing VPDES permits issued to Phase 1 and 2 MS4 communities, private development industry supports our position. Further, there are no public funding programs in place to provide the financial assistance needed to retrofit existing urbanized lands. A growing number of proactive communities that have adopted local stormwater fees are ahead of the game, but they do not begin to collect monies to cover the cost to meet existing or proposed retrofit goals. [FN 63] The draft WIP does not commit to any new program capacity to address these deficiencies, instead indicating the Commonwealth will "consider" or "investigate" a list of new authorities, regulations, and funding mechanisms to meet the proposed allocations. While the draft WIP did describe in general some potentially viable strategies to fill gaps, none were fleshed out with details and analysis that demonstrates a strong obligation to pursue them. Any thought that additional reductions from this sector can be realized through the NCE, without first establishing mandates that urban runoff dischargers improve their performance by a deadline, is unrealistic. Further discussion of an expanded NCE is included later in this section.

Some new programs may be on the horizon to address future growth from this sector. A proposed revision to the VSMP regulations for discharges of post-construction stormwater from private development created over a nearly a four-year period were finalized at the close of the Kaine Administration in 2009. In short, these regulations would have required new development to achieve the average treated predevelopment pollution loading from the farm and forest lands it replaced (equated to a TP criterion of 0.28 pounds/acre/year). The regulations were subsequently suspended in January 2010 and are being reevaluated by the Commonwealth to address concerns that they were technically flawed and too costly to developers. [FN 64] However, the draft WIP includes this very same requirement as the "Tier 1 load balancing approach" stating that new development will be held to a post-development load that "produces a no net increase from the average forest, cropland, pasture, and hay loads after treatment with the suite of agriculture and forest BMPs as previously identified in this WIP." [FN 65] In fact, based on Virginia's own chosen source sector allocations, the draft WIP anticipates a TP criterion of 0.26 pounds/acre/year, which is more stringent than the criterion in the suspended regulations. [FN 66] While CBF strongly supported this approach through the development of the proposed post-construction regulations, we are unsure whether to take this provision seriously based on the McDonnell Administration's support of the suspension of the regulations. These regulations must actually be promulgated for the Commonwealth to claim this program as a means to provide reasonable assurance that the requirements of the TMDL will be met.

The Commonwealth's Tier 2 load-balancing approach in the draft WIP "will allow for an accounting of existing programs and practices on the ground that are currently either inadequately tracked or not tracked at all." [FN 67] Assuming that this means that Virginia will improve enforcement and tracking of pollution reductions obtained from existing programs, CBF strongly supports this action.

Lastly, CBF supports the Commonwealth's plan to require federal facilities to manage existing and new stormwater discharges consistent with Presidential Executive Order 13508, the Energy Independence and Security Act of 2007, and the Clean Water Act. [FN 68] [FN 69]

Recommendations

In the forthcoming pages CBF offers seven specific revisions to the draft WIP that will help provide a high level of reasonable assurance that the revised pollution allocations for the urban runoff sector in Section IV can be met. Note that these allocations are set based on a Level 2 effort included in the August 24, 2010 SAG discussion draft.

(1) Establish a new state program to fund the retrofit of existing developed lands by 2011.

The Commonwealth and every state, locality, homeowners association (HOA), and commercial development in the nation, is facing the significant challenge of how to pay for capital projects and ongoing maintenance programs to address the pollution discharged by the existing urban and suburban landscape. Further complicating this task is that many lands were developed prior to any requirements to address the quantity and quality of stormwater. Also, the HOAs that own many urban runoff practices on private lands are loosely organized and have very little funding options, short of association fees that usually only cover routine maintenance, if that.

Potential actions, generally called "urban retrofits," could include the upgrade and repair of existing flood control infrastructure, upgrade of stormwater BMPs, disconnection or replacement of impervious surfaces, installation of practices for water reuse, and restoration and protection of urban streams. The retrofit concept is not defined in the draft WIP and is viewed differently across stormwater practitioners and regulators. For the Virginia WIP, we suggest defining the "retrofit of an acre of urban land" as the installation and maintenance of actions that reduce nutrient pollution to the maximum extent practicable from that acre of land.

These types of efforts, particularly the "core" public works needs, are already ongoing, planned, or needed in most urbanized areas of the state in order to comply with TMDLs on local waterways, meet MS4 or Combined Sewer Overflow (CSO) Long-Term Control (LTCP) requirements, prevent hazardous flooding and property damage after heavy rains, protect drinking water supplies, and to generally improve the livability of their communities. Bay TMDL or not, these actions will, and must, take place eventually. In many cases, full implementation of work that is already mandated or locally essential for local rivers, creeks, and streams should be more than enough to protect the Bay downstream. Where Bay requirements necessitate actions beyond those that are locally driven, the NCE and other incentives can be used to reduce the costs of this work. However, we reject the premise that most local and Bay-related urban runoff infrastructure improvement needs can be avoided by an expansion of the NCE.

There is no question that there will be significant costs to address this problem. History has proven that the cost of public infrastructure projects only increases with time. For example, communities that chose to pursue full or partial separation of old CSO systems 20 years ago surely saved hundreds of millions of dollars, compared to cities that are

pursuing CSO work today. The tributary strategy listed the costs to meet requirements for the urban sector at \$7.5 billion. [FN 70] Note that this also includes costs for the installation of stormwater BMPs for new development activities that will be absorbed by developers and builders, and skews high in our opinion because lower cost non-structural practices that reduce stormwater volume were not fully considered in the estimate. Regardless, it could cost billions to retrofit and maintain urban lands in a manner that protects local waters and the Bay.

Thus, the Commonwealth must immediately pursue (i) an appropriate mechanism to deliver funding and incentives to the localities, homeowners, and private lands that pursue retrofits on existing developed lands, and (ii) a dependable source of funding to cover capital and maintenance costs for these retrofits.

We suggest a revision to the Code that creates an urban retrofit funding program to distribute monies. This program should only fund a relatively short list of proven practices that "capture" runoff on-site through infiltration, evapotranspiration, and reuse, thereby reducing pollution and augmenting and protecting existing drinking water sources. Eligible "green infrastructure" practices could include urban tree cover, rainwater harvesting and reuse systems, disconnection of impervious surfaces, pervious pavement installation (green alleys, sidewalks), rain gardens, swales, bioretention, green roofs, and targeted pond and filtration retrofits that support improved infiltration. New installation of stormwater ponds for storage, paved channels, and other infrastructure specifically designed for flood control that have limited ability to reduce nutrients or protect drinking water should not be included. The program should include both a cost-share component for localities and HOAs (similar to that in place now for WWTP upgrades and agricultural BMPs) and a tax credit component for existing commercial and industrial landowners.

Such a program should use a sliding-scale to determine cost-share amounts, with a higher percentage provided for those that pursue projects the soonest, those that are closest to waterways, and/or those that would provide the greatest pollution reductions. Eligibility requirements should also apply, including provision of a specified match (obtained via stormwater fee or other sources) by localities or HOAs and maximum utilization of "non-structural" practices (indicated in existing MS4 and industrial stormwater permits) by commercial and industrial lands.

Such an innovative fund will be of little use if it not adequately funded. Therefore, the Commonwealth must make a real, long-term commitment to address this problem now, before the costs ascend further. A consistent source of funding via an appropriate tax or fee is best to assist with long-term planning by potential fund users, while budget-to-budget allocations to the General Fund, the approach used for WWTP and agricultural funding, is a workable, but less desirable option. Additionally, CBF believes strongly that the federal government must play a significant role in funding this work, perhaps mimicking the approach used to fund thousands of WWTP upgrades nationwide after passage of the CWA. Further, CBF has spent more than a year actively supporting the Chesapeake Clean Water Act, which would provide \$2.5 billion for these types of stormwater retrofits Bay watershed-wide. [FN 71] Whether through this proposed law, targeted allocations to states from EPA via the State Revolving Loan Fund (SRLF), or another funding instrument, we are committed to working with the U.S. Congress and EPA to dramatically increase funding for stormwater retrofits.

Three law changes and new permits would be needed to support this program. The new urban retrofit fit would need to be created within the WQIF, Virginia Clean Water Revolving Loan Program, or as a new section of code. To facilitate this new program, and ensure access to stormwater funding that may be available through the federal SRLF in the future, the code would need to be changed to allow funding of stormwater projects under the Virginia Clean Water Revolving Loan Program (VCWRLF). As currently written the VCWRLF is limited to financing only WWTP, agricultural, Brownfields, and land conservation projects. [FN 72] Also, the existing NCE provisions in the code would need to be

amended to properly integrate urban runoff to help meet Bay-related goals in a manner that protects local water quality. And lastly, VDPEs regulations and/or permits that cover existing developed lands would need to be amended to include a specific retrofit mandate, as discussed further in the next recommendation.

Funding the control of stormwater pollution from existing developed lands will not be cheap. But the Commonwealth can begin to heal its urban streams, ensure existing urban lands do their part to clean the Bay, and save billions of dollars in the long-term by facing up to the problem now and establishing a strong and sustainable program for completing this important work.

(2) Establish aggressive, yet feasible, retrofit mandates in MS4 permits by 2012.

The Commonwealth should revise and reissue by 2012 the currently administratively continued individual MS4 permits for the 11 Phase 1 communities and revise the existing general MS4 permit for Phase 2 communities to include binding retrofit requirements. The permits should mandate a Level 2 level of treatment of MS4 acreage by 2025. This is the same level of treatment proposed by the Commonwealth in the August 24, 2010 discussion draft. This would require retrofit of 25 percent of high intensity impervious land (1.6 percent per year), 20 percent of low intensity land (1.3 percent per year), 10 percent of high intensity pervious land (0.67 percent per year), and 10 percent (0.67 percent per year) of low intensity pervious land. Note that we suspect that if implemented, urban turf fertilization restrictions recommended below will assist with achievement of the pervious lands goals.

Employing the NCE to assist compliance can be appropriate, provided trading is used to meet a binding limit included in the permit and trading does not result in local water quality impairments. If limits are set at such a stringent level that the limits can only realistically be achieved through acquisition of credits, there must be a demonstration by the discharger and/or the Commonwealth in developing the program that adequate credits are available to meet the need. Requiring confirmation up front that credits are available and under an exchange contract during the permit renewal process, similar to the permitting approach for wetlands mitigation, is a potential means to provide surety that anticipated reductions will be achieved. In regions where a comprehensive watershed plan is in place, equivalent reductions within the same watershed that meet other mandates and goals of the Bay TMDL, should be allowed. Lastly, the total nutrient reductions to meet these mandates over the 15-year WIP period should be used to set WLAs for each MS4 community, and these WLAs should be included in the Phase 1 individual permit or in a registration list (or equivalent) for the Phase 2 general permit.

(3) Restrict the sale and application of fertilizer to turfgrass statewide beginning in 2012.

Turf coverage in the Bay watershed ranges from 2.1 to 3.8 million acres, or 5.3 percent to 9.5 percent of total Bay watershed area, and roughly 75 percent of this turf cover is potentially devoted to home lawns. [FN 73] This same study estimated that turf acreage in Virginia, which stood at 1,100,000 acres in 2001, has grown faster than population or impervious cover in the last three decades, with an annual growth rate of 8.6 percent. [FN 74] As of 2004, 62 percent of turf acreage in Virginia was home lawns. [FN 75] Turf grass is now the largest crop grown in the Bay watershed, and even represents the single largest irrigated crop in the U.S. [FN 76] [FN 77] Between July 1, 2008 and June 30, 2009, fertilizer for non-agricultural use represented 41 percent by weight of that sold in the Commonwealth. [FN 78] The remaining 59 percent is applied to agricultural lands. We estimate that non-agricultural fertilizers represent approximately nine percent of the TN and ten percent of the TP applied as fertilizer in Virginia. [FN 79] A significant amount of fertilizer is applied by homeowners who do not have expertise in nutrient management planning or turf

management. All told, the misapplication of these fertilizer nutrients to urban lawns can result in significant pollution to waterways in urban areas.

Thankfully, there are some common-sense, cost-effective approaches to improving management of turf fertilizer that minimizes pollution, assists compliance with local TMDLs, MS4 permits, and ordinances, and helps maintain healthy grass cover.

(a) Contract application of TN and TP to turfgrass.

About 20 percent of turf lands in Virginia (about 200,000 acres) receive fertilizer from private contract applicators.[FN 80]Currently about 10 percent of these acres are enrolled in a voluntary DCR program that promotes NMP practices. [FN 81] VDACS is currently in the process of revising its regulations and recommending Code revisions for the contract application of fertilizer to turfgrass. [FN 82] Below we describe our suggestions for revising these regulations. A more detailed explanation of these recommendations was included in written comments submitted to VDACS in October 2010. [FN 83]

Training. CBF supports VDACS proposal in the revised regulations to require contract applicators to receive training and certification to ensure that nutrients are applied in accordance with provisions for turfgrass in the Virginia Nutrient Management Standards and Criteria.

Reporting. As currently proposed by VDACS, accounting of nutrient management acres will rely on the voluntary program managed by DCR. We strongly recommend mandatory annual reporting to the state that includes TN and TP applied, total acreage receiving these nutrients (by county or city), and total acreage receiving these nutrients in accordance with nutrient management criteria requirements. This type of basic, aggregate data is already collected by applicators and its submission to VDACS once a year will not be overly burdensome or elicit business privacy concerns. Voluntary reporting is inappropriate for a regulatory program, particularly one that is assisting with implementation of the Bay TMDL, MS4 permits, and other local water quality directives. Collection of this data will also allow Virginia and localities to get proper credit under the Bay TMDL and other TMDLs for urban runoff. A proper accounting of these actions has the potential to reduce the need for more expensive urban retrofits and address the concerns raised in the draft WIP and amongst stakeholders that on-the-ground BMPs are not being adequately counted. Simply put, Virginia and EPA cannot obtain an accurate count of actions if they are not efficiently reported.

Enforcement. Contract applicators that fail to comply with nutrient management requirements should face significant financial disincentives, including a substantial fine as well as loss of license and individual applicator certification. Fines for failure to comply should at least double the estimated cost of complying (i.e. the cost of training courses for staff).

Labeling. Labeling of lawn fertilizer sold in Virginia should have clear language advising consumers on how to use the product appropriately to achieve desired results and avoid pollution of surface waters. The currently proposed language is insufficient. Specifically, CBF recommends the inclusion of language compatible with Florida's labeling requirements for fertilizer sold at retail. The Florida law states that the following language shall appear conspicuously on bags of fertilizer sold at retail:

"Do not apply near water, storm drains or drainage ditches. Do not apply if heavy rain is expected. Apply this product only to your lawn/garden, and sweep any product that lands on the driveway, sidewalk, or street, back onto your

lawn/garden."

Given that we do expect frozen soils in Virginia and know that some homeowners do use fertilizer as a de-icer, we would recommend that the second sentence be modified to read:

"Do not apply to frozen or saturated ground, or if heavy rain is expected Do not use this product as a de-icer."

A final version of the VDACS regulations consistent with these ideas, and appropriate Code changes, are needed to accomplish these recommendations.

(b) Sale and application of TP fertilizer for lawn maintenance.

A recent report by Virginia Tech researchers evaluated several management approaches to reducing TN and TP runoff from fertilized urban acreage.[FN 84] The reports' key conclusions were that the implementation of a wide range of fertilizer management practices and policies could significantly reduce runoff of TN and TP, and that by carefully restricting application rates, TN loss in urban runoff from well-managed turfgrass will be minimal. The authors recommended a range of approaches that are estimated to reduce annual TN and TP pollution to surface waters in Virginia by 454,646 and 123,655 pounds, respectively.

Based on the results of this and other studies, the existence of similar programs in at least ten other states already, CBF supports a new program to restrict the sale and application of lawn fertilizer that includes the following components that are consistent with the Virginia Tech study: [FN 85]

Establish point-of-sale restriction on lawn fertilizer that contains TP for lawn maintenance. Most well-established home lawns and landscapes will not be soil phosphorus limited, but exceptions would be needed for "new ground" seedings, active construction sites, or critical renovation areas in home lawns where soil test validates an actual phosphorus deficiency. Requirements for signage and point-of-sale education should also be included.

Establish a point-of-sale requirement for lawn fertilizer that it must contain at least 25 percent slow-release TN. Guidance should be provided regarding the benefits of one-time and annual applications. Many manufacturers already combine quick and slow release sources of TN to take advantage of both strengths. The quick release source provides quick green-up but is at a sufficiently low rate to prevent salt injury or reduce the potential for leaching. The slow release source is available to provide a greening response for a longer duration.

Prohibit contract applicators from applying TP to established lawns without a soil test and require compliance with strict annual and one-time TN application in accordance with Virginia Nutrient Management Standards and Regulations for turfgrass management.

Bar application of fertilizer on sidewalks, driveways, or other paved surfaces.

Establish appropriate seasonal application restrictions to prevent application to frozen ground.

Create appropriate exemptions for organic sources of TN in fertilizer.

Implementation of this recommendation would require passage of a new statewide law. An appropriate phase-in period through 2012 would be appropriate for the TP provisions, and perhaps a longer period for the slow-release TN requirement. Take note that DCR distributed a draft piece of legislation to SAG members in August 2010 that included very similar requirements, but it was not included part of the draft WIP.

(4) Make several improvements to the Virginia Erosion and Sediment Control Program.

The Commonwealth should pursue two common-sense improvements to Virginia's Erosion and Sediment Control programs that have the potential to deliver reductions in nutrient and sediment pollution.

First, Virginia should require that sites be at least temporarily stabilized within three days of site disturbance, rather than seven days as currently allowed by the Erosion and Sediment Control regulations. Shortening the time sites may remain destabilized will reduce the chance that sudden rain events will wash sediment, nutrient, and high runoff volumes from the sites. Virginia should also expeditiously revise the regulations and associated guidance to ensure they are consistent with the federal effluent limitations guidelines (ELGs) for the construction and development industry when they are finalized.[FN 86]

Next, nutrient management on active construction sites should be consistent with DCR's "Technical Bulletin No. 4-- Nutrient Management for Development Sites." [FN 87] This bulletin advocates application of 50 percent of the TN that is presently recommended in the 1992 Virginia Erosion & Sediment Control Handbook for permanent vegetative stabilization on construction sites. Based on more recent nutrient management science, the recommended amount of TN is excessive. This could provide significant TN reductions through 2025.

In order to achieve these pollution reductions, revision and reissuance of the Construction General Permit and revision of state regulations will be necessary. We suggest that this action take place as soon as the currently suspended ELGs are finalized by EPA.

(5) Initiate an intensive education campaign on citizen education to reduce stormwater pollution.

The Commonwealth should promptly begin a statewide media campaign to educate citizens about steps they can take to reduce urban runoff. The campaign should use television and other new media that maximizes reach into the community. The focus should be on simple actions that reduce urban runoff, protect drinking water, and save people money. Such a campaign has the potential to provide immediate reductions in pollution from changes in citizen behavior, and future reductions indirectly by building citizen support for water quality programs. Table 4 suggests ten actions to consider for such a campaign.

Table 4--Ten Things Citizens Can Do to Prevent Stormwater Pollution and Save Money

1. Limit use of fertilizer.
2. Use native plants.
3. Pick up trash.
4. Keep water away from pavement.
5. Compost yard waste.
6. Never dump anything down the drain.
7. Perform environmentally-friendly car care.

8. Pick up after your pet.
9. Drive less.
10. Become active in your community.

(6) Require no net increase in post development pollution loads from new development by 2012.

Virginia should promulgate new regulations for post-construction stormwater that at least provide a no net increase in TN and TP loadings from the average predevelopment conditions to ensure that all nutrient loads from new development are fully offset. The draft WIP indicates a willingness to finalize these regulations. Moving toward 2025, the state should require that new development achieve a no net increase from the forested condition, either on-site or through acquisition of offsets.

(7) Establish regulations and incentives that promote redevelopment and sound land use.

The Commonwealth should take the following steps to reduce pollution from existing and future developments. Virginia should promulgate the new regulations for post-construction stormwater that require a 20 percent reduction in TN and TP from redeveloped lands. The draft WIP indicates a willingness to finalize these regulations.

Studies indicate that high density development provides less stormwater pollution per capita than low density greenfield development.[FN 88] [FN 89] [FN 90] We suggest that Virginia create incentives for redevelopment of existing urban corridors and projects in planned growth areas that include specific sound land use elements, such as supporting higher density, compact development, transit-oriented design, multiple uses, and/or increased open space, buffers, or tree canopy areas that are permanently protected. Incentives could include tax reductions, density bonuses, parking waivers, fee reductions, and rapid project approval. Some local governments already provide a mix of incentives for certain actions. Incentives should only apply to projects that are in approved urban development areas (UDAs), are compliant with the CBPA (if applicable), and are consistent with the local comprehensive plans.

Conclusions

CBF concludes that full implementation of these recommendations will provide the level of reasonable assurance needed to achieve pollution reductions from this source sector in the revised pollution allocations based on Level 2 included in Section IV.

IV. Onsite Wastewater Systems

Background

Conventional on-site sewage systems and alternative onsite septic systems (AOSS) are installed in Virginia. AOSS systems overcome drainfield area and other site limitations that preclude the use of conventional systems. Approximately 536,200 systems are located in the Virginia Bay watershed, with 11,000 new systems added each year (10 percent are AOSS). The Code, the Sewage Handling and Disposal Regulations, and Emergency Regulations for Alternative Onsite Systems govern these systems. [FN 91] [FN 92] [FN 93] EPA and the Commonwealth assume these systems retain all TP onsite. The Code provides authority for the Virginia Department of Health (VDH) to set TN limits on AOSS, but not for conventional systems. The existing AOSS regulations require large systems (greater than 1,000

GPD) to meet a five mg/TN limit. It has been VDH's policy for years to require compliance with the drinking water standard of ten mg/L nitrate-N in groundwater for all systems using mass drainfields (greater than 1,200 GPD). Note that dilution, not necessarily treatment, may be used to meet these TN limits. VDH does not administer funding programs for conventional or AOSS systems, although the code authorizes a betterment loan program to repair and or upgrade existing systems. The CWRLF, WQIF, and other programs sometimes provide grant funds for upgrades.

Even though programs are in place to address TN from new large AOSS, the sheer number of new conventional systems-many using 100-year old technology-will result in the total TN pollution from this source sector to continue to increase with growth. While onsite systems in Virginia only provide about four percent of TN load to the Bay, clusters of outdated or failing systems can pollute groundwater used for drinking water and nearby surface waters, such as poorly flushing creeks, embayments, and coves. The draft WIP indicated that, "VDH is beginning to see an increase in the number of applications for larger onsite systems in the Chesapeake Bay Watershed, but it is difficult to determine the trend." [FN 94] It is reasonable to conclude that the advent of new AOSS technologies that overcome conditions that ruled out conventional systems is driving this trend.

Draft WIP

The onsite system source sector portion of the draft WIP provides a well-written and direct overview of the challenges faced by this sector. Like stormwater, the draft WIP proposes a TN allocation based on an E3 level of treatment for this sector in the James River basin. The remaining TN allocations are at Level 2, which is the same level of treatment in the August 24, 2010 discussion draft. TP allocations are not provided to this sector.

The draft WIP acknowledges that existing onsite programs will not be able to reduce TN discharges to the Bay. Similar to our stormwater comments, there is absolutely no way that an E3 level of treatment can be achieved in the James River basin. Further, while the allocations were set based on Level 2 treatment and the draft WIP describes the new program capacity prescribed in the scoping scenario as necessary to meet Level 2 (installation of TN removal, septic pump outs), like the other NPS sectors, there was no commitment to pursue necessary new program capacity needed to support the effort. However, the draft WIP does indicate that new pending regulations for AOSS will propose the inclusion of TN limits for small AOSS systems (less than 1,000, mostly single family homes), elimination of the dilution option for compliance by large systems, and more stringent design standards for placement in sensitive areas. Lastly, there is no commitment to pursue new funding to upgrade existing systems, nor is there a specific pledge to instate offset requirements to address pollution from new systems. Taken in total, the existing programs and draft WIP do not provide reasonable assurance that the proposed allocations can be met.

Recommendations

We offer the following six specific revisions to the draft WIP that will help provide a high level of reasonable assurance that the revised pollution allocations for the onsite sector in Section IV can be met. Note that these revised allocations are set based on a Level 2 level of effort included in the August 24, 2010 discussion draft.

(1) Require existing septic systems within sensitive areas to install best available technology for TN or offset equivalent load by 2025.

The Commonwealth should require all existing conventional or alternative onsite systems in sensitive areas to install

best available technology (BAT) for TN or offset an equivalent load for the design life of the system. Single family home systems that hook up to an existing WWTP or a community onsite system that achieves BAT would also meet this mandate. "Sensitive areas" should be defined as onsite systems whose effluent dispersal components are within 100 feet of the ordinary high water mark of surface waters, open channel MS4s, sink holes, or public or private sources, including wells, springs, and reservoirs. This 100-foot boundary is consistent with new EPA guidance for onsite systems on federal lands that calls for a 100-foot setback for system components from these waters. [FN 95] Even a properly operating onsite system can discharge TN that far exceeds secondary levels of treatment. Thus, systems operating in sensitive areas can result in a locally-significant direct discharges. Also, dilution should no longer be used for compliance with TN limits. Improved performance in these areas will help protect drinking water sources, shellfish waters, and help meet local bacteria TMDLs and other mandates, as well as help reduce pollution to the Bay downstream. This recommendation is consistent with the new proposed regulations for AOSS; however, this approach extends the more stringent requirements to all systems in sensitive areas.

Specific Code changes would be required to allow VDH to mandate TN treatment for conventional systems and allow system owners to access an appropriate offset program. Changes to the Sewage Handling and Disposal Regulations would also be needed. Lastly new grant, loan, and incentive programs are warranted to achieve this recommendation. A 15-year implementation schedule based on system size and risk is recommended to phase in this requirement.

(2) Require installation of BAT for all new and replacement septic systems within 1,000 feet of sensitive areas by 2012.

Virginia should require that all new and replacement onsite systems within 1,000 feet of sensitive areas achieve at least a BAT for TN or offset an equivalent load for the design life of the system. This is also consistent with recent EPA guidance and new law in Maryland. [FN 96] [FN 97] The BMP proposed by VDH in the draft WIP that employs a denitrification system with a shallow placed, pressure dosed dispersal system is one way to accomplish this level of treatment. As noted in the previous recommendation, specific Code and regulation changes will be needed to allow TN treatment standards for conventional systems and access to offsets by developers.

(3) Improve enforcement of the existing CBPA septic pump out provisions immediately, and expand those provisions Virginia Bay watershed-wide by 2025.

The Commonwealth must ensure that the septic system provisions of the CBPA are fully enforced to maximize capture of nutrients. The CBPA regulations require that septic systems in the Resource Protection Areas be pumped out at least every five years, or alternatively, install sediment trapping systems approved by VDH. Further, a five-year pump-out requirement should be required of all systems in the Virginia Bay watershed by 2025. A new law and regulations would be required to expand the pump-out requirement.

(4) Prohibit new onsite systems in sensitive areas by 2012.

The state should prohibit the placement of any onsite system components in sensitive areas as defined in the first recommendation. This action will prevent TN inputs, and even TP inputs, as phosphorus could be released if the systems discharge to hydric soils or soils that are already saturated with phosphorus. This would require a Code and regulation changes.

(5) Establish a financial assistance program for system improvements by 2012.

The Commonwealth should create a tax credit program to assist system owners in complying with the first recommendation for this source sector. Appropriation of funding to support the existing betterment loan program should also be considered to assist with costs borne by the system owner. A Code change would be necessary to support this new program.

(6) Require offsets from all new systems through an in-lieu fee approach.

All nutrient pollution from new onsite systems should be offset. Adequate funds should be collected to offset the load for the life of the system. To ease compliance with this standard, we suggest establishing an in-lieu fee program that allows landowners who are newly required to upgrade their systems the option to pay into a fund. Funds should be available for use by localities for nutrient reduction projects. Such a fund is discussed further in the NCE section below.

Conclusions

CBF concludes that full implementation of these recommendations will provide the level of reasonable assurance needed to achieve pollution reductions from the onsite sector in the revised pollution allocations based on Level 2 included in Section IV.

V. Expanded Nutrient Credit Exchange

Background

Market-based pollution trading programs have been established or are under development across the nation. Pollution trading in the United States began with the Acid Rain Program established in 1990 to reduce the atmospheric emission of sulfur dioxide and nitrogen oxides primarily from coal-fired power plants. [FN 98] This program has been hailed as a success by EPA, industry, and others. Owing to the success in the air arena, as many as 70 water quality trading programs are underway or being explored across the country. [FN 99] [FN 100] Most of these programs have used "point source-to-point source" credit trading approaches or were specifically limited in participants or geographic scale. Newer programs operating in Connecticut to protect the Long Island Sound and in Pennsylvania and Virginia for the Bay are the farthest along in setting up programs that allow "point source to NPS" trades, support offset of pollution from future growth, and/or are focused on large coastal watersheds. A study by the Water Resource Institute in 2010 concluded that a Bay-wide nutrient trading program could help reduce nutrient pollution in the Bay in the most cost-effective and timely manner. [FN 101]

Virginia established the NCE in 2005 and created a permitting mechanism for the program in 2006.[FN 102] [FN 103] This program allows point-to-point and NPS credit exchange for compliance, offsets to address growth, and "bubbling" or sharing of WLAs by WWTPs that are part of the same sewerage authority. In 2010, the code was amended to require offset of any nutrient pollution from new small WWTPs that discharge more than 1,000 GPD.[FN 104] Also in 2009, a provision was added to allow compliance with stormwater requirements at §10.1-603.4 through the use of offsets.[FN 105] The ability to use offsets was expanded to allow compliance with MS4 permits and TMDLs in 2010.[FN 106]

As noted in the WWTP sector section, the existing NCE has supported 46 point-to-point source nutrient contracts, which are projected to help accelerate pollution reductions at lesser cost. To our knowledge, no point source-to-NPS

trades have taken place so far. Several private nutrient banks hold NPS offsets for sale, but the current excess capacity held by point sources and the lack of appropriate regulatory drivers for potential buyers has precluded a market for these offsets to date.

CBF supported the legislation that created the NCE programs described above. Our focus during development of the enabling legislation was to ensure that the program operated at an appropriate scale and with sufficient rules to meet the following broad goals: (i) ensure delivery of actual reduction in pollution loads to the Bay and its rivers, (ii) help offset pollution from future growth, (iii) protect local water quality and meet local mandates, and (iv) include realistic expectations and deadlines for the ability of the approach to solve water quality programs. Our conclusion after five years of operation is that the NCE is working as designed for point-to-point source trades, with some minor legislative changes it can facilitate offset of new growth, and lastly, with firm regulatory drivers, may eventually sustain a viable NPS trading component.

Draft WIP

The draft WIP proposes a significant expansion of the NCE. This program expansion is only vaguely described, short of indicating that it will reduce reliance on implementation of sector-specific BMPs, allow agriculture and onsite systems to purchase credits to achieve compliance, and that allocations--very aggressive allocations--for urban runoff and onsite systems can be attained through the expanded NCE. The draft WIP does not include any analysis of credit supply and demand, projected offset needs, the cost of credits, or any other data to prove that this approach can be sufficient to meet the pollution allocations. Further, the document fails to even mention the types of new legislative authority or regulatory changes that are needed to launch an expanded program. In fact, the draft WIP is explicit that, "The specific details of an expanded nutrient credit exchange will be developed through the legislative and regulatory processes of the Commonwealth." [FN 107]

While the NCE was recognized as an important tool in the draft worksheets, scoping scenarios, and draft plans presented to the SAG, the wholesale use of the NCE proposed in the draft WIP appears to have been added late in the process. As presented, this approach raises significant concerns. Three problems undermine the potential success of an expanded program:

1. The lack of any regulatory mandate or other driver to compel the presumptive users of this expanded approach--the urban runoff or onsite sectors--to purchase credits. There would be no reason for an MS4 or homeowner to purchase credits unless they are required to improve their performance by a set amount by a set date.
2. The Commonwealth has a mixed record maintaining a firm cap in program participants. Maintaining pollution caps is absolutely critical to a successful market-based trading program. If participants believe it is more efficient to invest in efforts to seek an increased cap, rather than investing in credits, the program will not work. Requests for additional WLAs were before the General Assembly in the past, yet did not become law. To date at least two administrative requests for additional nutrient WLAs were rejected by the State Water Control Board.[FN 108] However, in April 2009, the Board approved a request for additional pollution allocations by Merck.[FN 109] And unfortunately, in September 2010, the Board overturned its previous denial (in April 2009) by approving a settlement which increased the WLAs of the Frederick-Winchester Service Authority's Opequon WWTP. [FN 110] We fear some will argue that these decisions establish a precedent that caps are not firm.

3. There is no evidence presented in the draft WIP to support the premise that WWTPs would be willing to permanently give up via sale the amount of nutrient allocations that appear to be necessary to support an expanded effort. Excess wastewater capacity is "gold" to localities, and it seems unlikely that significant credit exchanges, even between WWTPs and MS4s that serve the same community, would be acceptable to local elected officials.

The draft WIP states in regard to filter feeders, such as oysters, that "Virginia is committed to increasing the population of these natural filters and believes credit for filter feeder restoration and the associated nutrient removal should be recognized in implementing the James River TMDL." The concept of integrating oyster restoration into nutrient trading programs has been evaluated by Virginia Commonwealth University and Virginia Tech and there has been growing support for this concept amongst stakeholders.[FN 111]

CBF is a leader in promoting native oyster restoration and oyster aquaculture, and is actively involved in the protection of menhaden and other filter feeders. However, at this time, for the following reasons, we oppose allowing oysters or other filter feeders placed instream to be used to generate nutrient offsets to assist permitted sources with attainment of water quality standards:

Right now CBF can only support offset approaches that prevent or reduce pollution from entering surface waters, not those that will treat it after it has been released. Once in surface waters, TN and TP can cause ecological effects (algal blooms, dead zones, harm aquatic life) and it will be very difficult, if not impossible, to ensure that those effects will be adequately mitigated by oysters or other instream treatment options, particularly if they are not in the same geographic location.

Nitrogen removal efficiency of oysters is very site specific. Consequently, we cannot be certain that their removal efficiencies will be the same at different locations and under different conditions. For example, if oysters are placed in polluted water, or exposed to algal blooms or other stressors, and they cease feeding or do not feed as efficiently, they may not remove as much pollution as anticipated.

We will, however, strongly support oysters as an adjunct to, not a replacement for, the reduction of pollution from land-based sources. Additionally, use of oysters and other filter feeders "off-stream" in constructed water bodies to provide additional treatment of WWTP discharges or runoff before it reaches waterways may be a potential option in the future.

Finally, the draft WIP recognizes the ability of the existing NCE to offset new loads from the largest WWTPs and introduces the concept of establishing a perpetual funding source for offsets that could have great promise as a way to truly offset loads from developed lands. While not committing to pursue new program capacity, the draft WIP identifies some workable solutions to fill gaps in the existing NCE program by requiring small WWTPs and onsite systems to purchase offsets.

Recommendations

(1) Establish firm mandates for regulated parties expected to participate in the NCE program by 2012.

The Commonwealth should expeditiously establish more stringent nutrient limits and deadlines for compliance for the dischargers that are envisioned to participate in the expanded NCE. MS4s, onsite systems, and potentially, the largest non-significant dischargers would be subject to new mandates. Further, the state should work with the State Water

Control Board to ensure that WLAs in place for significant WWTP plants are not increased to accommodate future plant capacity needs. As discussed earlier in this section, without a firm regulatory driver, there is nothing to compel source sectors to participate in any market-based trading programs.

(2) Create an in-lieu fee offset program for small dischargers by 2012.

To comply with retrofit or offset requirements placed on smaller dischargers, such as those from small WWTPs (less than 1,000 GPD) or onsite systems used for single family homes, Virginia should create an appropriate program to accept in-lieu fee payments to address delivered nutrient pollution for the working life of the system. The concept of establishing a fund that would set, collect, and manage these in-lieu payments such that needed "perpetual" reductions are provided is a good idea that should be explored further. Such funds could be provided to localities to pay for less intensive actions whose cost can reasonably be expected to be covered by the funds expected to be collected. Septic pump outs, buffers and tree plantings, urban BMP maintenance, and urban nutrient management may be options.

(3) Establish different offset ratios for different types of development.

Maryland's draft WIP introduced the use of different ratios for different types of development. New development of "greenfield" areas will be required to provide more offsets than development in existing or planned growth corridors. Such an approach can help encourage the types of high density development in growth areas that studies show are better for water quality. Virginia should consider building at least a modest version of this approach into the expanded NCE, perhaps requiring additional offsets for new development of forests and fewer offsets for new development in UDAs or projects that achieve specific land-use principles. Care should be taken to ensure that the "net" offsets across all new development still compensate for new pollution loads.

VI. Two-Year Milestones

Background

EPA provided detailed guidance to the Bay jurisdictions about the content of the WIP and two-year milestones. "EPA expects the Watershed Implementation Plans and two-year milestones will contain greater source sector and geographic load reduction specificity, more rigorous assurance that load reductions will be achieved, and more detailed and transparent reporting to the public than past Bay restoration efforts [emphasis added]." [FN 112] Further, EPA's April 2, 2010 follow-up guidance provides a series of questions to aid in WIP development. One question reads, "Does the Bay jurisdiction indicate how nutrient and sediment loads, by major basin, are expected to decrease over time so that EPA can assess future two-year milestones?" [FN 113] The clear intent here is to avoid the mistake made in the past of waiting until deadlines are upon us before assessing progress (determining in 2007 that the 2010 goal would not be met for example). EPA is looking for step-wise plans and targets that will assist with adaptive management and tracking progress by the jurisdictions and EPA during the 15-year life of the WIP.

Draft WIP

Unfortunately, the draft WIP does not comply with these requirements. It does not project the loads by basin and source sector or actions that will be pursued during each two-year period through 2025. The draft WIP indicates that, "Assessing compliance with two-year milestones will be based upon total loadings, not by compliance with individual

source sector allocations." [FN 114] However, the draft WIP contradicts this stated approach by also stating that, "Another component of this adaptive management approach is a requirement to develop two year milestones that provide specificity regarding pollutant control measures to be implemented within each two year period and to support maximum accountability [emphasis added]." [FN 115] Based on the failure to provide any breakdown of two-year plans in the draft WIP, our presumption is that total loadings will be used to assess progress every two years.

Recommendations

The Commonwealth should describe in the final WIP the approximate pollution reduction milestones by source sector for each two-year period and list the anticipated actions it will take to help meet each milestone goal. Greater specificity should be provided for near-term efforts, with more general types of actions appropriate for longer-term efforts. This information is essential to meet EPA's and stakeholders requests for more accurate and transparent tracking of BMPs and pollution reduction progress.

[FN 1] Chesapeake Bay TMDL Phase 1 Watershed Implementation Plan. Revision of the Chesapeake Bay Nutrient and Sediment Tributary Strategy. Public Review Draft. Commonwealth of Virginia. September 2010. Hereinafter "draft WIP."

[FN 2] 9 VAC 25-720.

[FN 3] 9 VAC 25-40.

[FN 4] Va. Code § 62.1-44.19.

[FN 5] 9 VAC 25-820. General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia. January 1, 2007.

[FN 6] See draft WIP.

[FN 7] Va. Code §§ 62.1-44.19:14 and 62.1-44.19:15 (HB 1135, 2010).

[FN 8] DEQ. 2010. PowerPoint Presentation. Progress Report on Virginia Water Quality Improvement Fund—Point Source Nutrient Reductions in Chesapeake Bay Watershed. January, 2010.

[FN 9] See draft WIP.

[FN 10] See www.deq.state.va.us/bay/wqiflist.html#draft.

[FN 11] DEQ. 2010. PowerPoint Presentation. Progress Report on Virginia Water Quality Improvement Fund—Point Source Nutrient Reductions in Chesapeake Bay Watershed. January, 2010.

[FN 12] EPA. 2010. A Guide for EPA's Evaluation of Phase 1 Watershed Implementation Plans. April 2, 2010.

[FN 13] Letter from Bill Street, JRA and Ann Jennings, CBF to Alan Pollock, DEQ and Russ Perkinson, DCR dated 8/27/2010 regarding Virginia's actions in support of the existing chlorophyll a standard for the James River.

[FN 14] DEQ. 2010. Cost of Point Source Credit for TN/TP—WQIF Projects.

[FN 15] 9 VAC 25-40-70.A.4.

[FN 16] See draft WIP.

[FN 17] Based on its significant industrial influent that may contain significant soluble TN, we included an upgrade to 8.0 mg/L TN for the Hopewell WWTP.

[FN 18] DEQ. 2010. PowerPoint Presentation. Progress Report on Virginia Water Quality Improvement Fund—Point Source Nutrient Reductions in Chesapeake Bay Watershed. January, 2010.

[FN 19] 9 VAC 25-31-250.

[FN 20] DEQ. 2010. Nutrient Criteria Development Plan for the Commonwealth of Virginia. March 24, 2004 (with 2010 Updates).

[FN 21] Commonwealth of Virginia. July 8, 2010. Virginia Chesapeake Bay TMDL WIP DRAFT Agriculture Scoping Scenario Implementation Levels.

[FN 22] U.S. Department of Agriculture. 2010. Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Watershed.

[FN 23] Commonwealth of Virginia. 2009; Annual Funding Needs for Effective Implementation of Agricultural Best Management Practices.

[FN 24] Pennsylvania Department of Agriculture Resource Enhancement and Protection (REAP) description: [http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/ProgramDetail.aspx?name=Resource-Enhancement-and-Protection-\(REAP\)-&navid=12&parentnavid=0&palid=22&](http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/ProgramDetail.aspx?name=Resource-Enhancement-and-Protection-(REAP)-&navid=12&parentnavid=0&palid=22&)

[FN 25] Va. Code §58.1-510 et.seq.

[FN 26] 9 VAC 25-32-10.

[FN 27] 12 VAC 5-585-10 et seq.

[FN 28] Va. Code §10.1-2100 et. seq.

[FN 29] 9 VAC 25-192-10 et seq.

[FN 30] Commonwealth of Virginia. 2005. Review of land application of biosolids in Virginia. Report of the Joint Legislative Audit and Review Commission. House Document No. 89.

[FN 31] 9 VAC 25-630-10 et seq.

[FN 32] Richard Lowrance et al., Evaluation of Coastal Plain Conservation Buffers using the Riparian Ecosystem Management Model, J. Am. Water Resources Association 1445, 1445 (2001). See USDA NRCS, Conservation Practice Standard: Riparian Forest Buffer 2 (Jan. 2006).

[FN 33] Phosphorus indices to predict risk for phosphorus loss. Available online at: www.sera17.ext.vt.edu/Documents/P_Index_for_%20Risk_Assessment.pdf.

[FN 34] 4 VAC 5-15.

[FN 35] SERA-17. November 2010. Revision of the 590 Nutrient Management Standards – SERA-17 Recommendations. Available online by November 12, 2010 at: http://www.sera17.ext.vt.edu/SERA_17_Publications.htm.

[FN 36] Butler, J.S. and F. J. Coale. 2005. Phosphorus leaching in manure-amended Atlantic Coastal Plain soils. J. Environ. Qual. 34:370–381.

[FN 37] USDA Natural Resources Conservation Services, 2010. Official First Review Draft, September 22, 2010, Conservation Practice Standard Nutrient Management Code 590.

[FN 38] B.W. Sweeny, et. al., 2004. Riparian deforestation, stream narrowing, and loss of ecosystem services. In: Proceedings of the National Academy of Scientists, September 28, 2004.

[FN 39] B.W. Sweeny, et. al., 2004. Riparian deforestation, stream narrowing, and loss of ecosystem services. In: Proceedings of the National Academy of Scientists, September 28, 2004.

[FN 40] 9 VAC 25-260-30.

[FN 41] U.S. Environmental Protection Agency. November 20, 2008. 40 CFR Parts 9, 122, and 412. Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision

[FN 42] P. Moore Jr., et al. 2010. Ammonia emissions factors from broiler litter in barns, storage, and after land application. Journal of Environmental Quality, published online August 9, 2010.

[FN 43] A. Aneja, at al. 2008. Ammonia emissions from agriculture-U.S. status and needs. Journal of Environmental Quality, 37:515-520.

[FN 44] Va. Code §10.1-560.

[FN 45] 4 VAC 50-30.

[FN 46] 4 VAC 50-50.

[FN 47] Va. Code §10.1-603.1.

[FN 48] 4 VAC 50-60.

[FN 49] Va. Code §10.1-2199 et. seq.

[FN 50] 9 VAC 10-20.

[FN 51] 4 VAC 50-60-1100 et. seq. (July 1, 2009).

[FN 52] 4 VAC 50-60-1200 et seq. (July 8, 2008).

[FN 53] 9 VAC 25-151 - General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity. July 1, 2009.

[FN 54] L. Lutz. 2009. Get the Dirt Out effort works to get construction sites to clean up their acts—Program trains citizens to recognize and report violations of sediment control regulations. Bay Journal. January 2009.

[FN 55] Commonwealth of Virginia. 2010. Spreadsheet provided to the Virginia WIP SAG titled, VA Basin Loads—Nitrogen and Phosphorus [Million Pounds/Year].

[FN 56] EPA Chesapeake Bay Program, Watershed Model progress run spreadsheet, July 30, 2010.

[FN 57] U.S. EPA Office of Inspector General. 2007. Evaluation Report: Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay. Report No. 2007-P-00031, September 10, 2007.

[FN 58] U.S. Geological Survey. 2007. Synthesis of U.S. Geological Survey Science for the Chesapeake Bay Ecosystem and Implications for Environmental Management—Summary of Findings and Management Implications. Circular 1316.

[FN 59] U.S. EPA Office of Inspector General. 2007. Evaluation Report: Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay. Report No. 2007-P-00031, September 10, 2007.

[FN 60] Virginia Secretary of Natural Resources. January 2005. Commonwealth of Virginia, Chesapeake Bay Nutrient and Sediment Reduction Tributary Strategy.

[FN 61] Commonwealth of Virginia. 2010. Virginia's Watershed Implementation Plan: Background, Approach and Summary of Proposed Actions Discussion Draft, 8/24/2010. This document was distributed at the last SAG meeting before release of the draft WIP. It proposed levels of treatment and corresponding actions for the main source sectors. The levels of treatment corresponded to a scoping spreadsheet distributed to the SAG that described for TN and TP current reduction progress, allocations consistent with an "everything, everywhere, by everyone" or E3 level of treatment, and allocations consistent with two lesser treatment levels, termed Level 2 and Level 3.

[FN 62] Commonwealth of Virginia. 2010. Presentation provided to Virginia WIP SAG titled, Virginia's Chesapeake Bay River Basins—2009 Progress, L2, L3, and Draft Allocations Loads. July 16, 2010.

[FN 63] Some communities with stormwater utilities in place include Alexandria, Prince William County, Richmond, Newport News, Hampton, Suffolk, Portsmouth, Chesapeake, Norfolk, and Virginia Beach.

[FN 64] www.townhall.state.va.us/L/ViewStage.cfm?stageid=5397.

[FN 65] See draft WIP, note 1, page 74.

[FN 66] Calculated using the equation draft WIP agricultural TP allocation + draft WIP forest allocation/total agricultural acres in Virginia Bay watershed + total forest acres in Virginia Bay watershed: 2,146,000 lbs + 1,090,000 lbs / 2,817,000 acres + 13,928,000 acres = 0.26 TP lbs/acre.

[FN 67] See draft WIP, page 77.

[FN 68] See Executive Order 13508.

[FN 69] Pub.L. 110-140.

[FN 70] See tributary strategies, page 69.

[FN 71] S. 1816: Chesapeake Clean Water and Ecosystem Restoration Act (Cardin).

[FN 72] www.vra.state.va.us/cleanwater.shtml.

[FN 73] Schueler, T. 2010. CSN Technical Bulletin No. 8—The Clipping Point: Turf Cover Estimates for the Chesapeake Bay Watershed and Management Implications. Chesapeake Stormwater Network.

[FN 74] *Id.*

[FN 75] *Id.*

[FN 76] *Id.*

[FN 77] Milessi, C.S. et al. 2005. Mapping and modeling the biogeochemical cycling of turf grasses in the United States. *Environmental Management*. 36(3): 426-438.

[FN 78] Commonwealth of Virginia. 2009. Total Fertilizer Summary Uniform Fertilizer Tonnage Report from July, 2008 to June, 2009.

[FN 79] Assume 20 percent nitrogen and 25 percent phosphorus content for farm and non-farm multi-nutrient fertilizer (Based on *The Fertilizer Encyclopedia*, by V. Gowariker et al., Copyright 2009 by John Wiley & Sons, Inc.), and average nitrogen and phosphorus content in lawn fertilizer (20 percent, and 5 percent, respectively from average of both turf

starter and turf maintenance fertilizer blends). Also assumes that organic fertilizer sold has same nitrogen and phosphorus concentration as dry poultry litter, per Virginia Nutrient Management Standards and Criteria.

[FN 80] Estimate from DCR staff.

[FN 81] Id.

[FN 82] Chapter 36 of Title 3.2 of the Code of Virginia.

[FN 83] Letter to Erin Williams, Policy & Planning Coordinator, VDACS from Kristen Hughes Evans, CBF, October 13, 2010.

[FN 84] Virginia Tech. 2010. Effect of Fertilizer Management Practices on Urban Runoff Water Quality.

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FN 85] State-wide or local programs that restrict the use of lawn fertilizer are in place in Minnesota, Michigan, Maryland, Illinois, Florida, Wisconsin, Maine, New York, and New Jersey.

[FN 86] 74 FR 62996. December 1, 2009.

[FN 87] DCR. 2003. Technical Bulletin No. 4 - Nutrient Management for Development Sites.

[FN 88] EPA. 2004. Protecting Water Resources with Smart Growth. EPA 231-R-04-002, May 2004.

[FN 89] EPA. 2005. Using Smart Growth Techniques as Stormwater Best Management Practices. EPA 231-B-05-002, December 2005.

[FN 90] EPA. 2006.

[FN 91] Va. Code §32.1, Chapter 6.

[FN 92] 12 VAC 5-610.

[FN 93] 12 VAC 5-613.

[FN 94] See draft WIP, page 87.

[FN 95] EPA. 2010. Guidance for Federal Land Management in the Chesapeake Bay Watershed—Chapter 6. Decentralized Wastewater Treatment Systems.

[FN 96] DEQ. 2010. Virginia Draft 305(b)/303(d) Water Quality Integrated Report to Congress and the EPA Administrator for the Period January 1, 2003 to December 31, 2008.

[FN 97] State of Maryland. SB554: Chesapeake Bay Nitrogen Reduction Act of 2009.

[FN 98] Title IV of the Clean Water Act.

[FN 99] www.epa.gov/owow/watershed/trading/tradingprograminfo.xls.

[FN 100] S. Greenhalgh and M. Selman. 2005. Nutrient Trading – A Water Quality Solution? World Resources Institute. Presentation at OECD Workshop on Agriculture and Water: Sustainability, Markets, and Policies. November 14-18, 2005.

[FN 101] Jones, C., et al. 2010. How Nutrient Trading Could Help Restore the Chesapeake Bay. WRI Working Paper. World Resources Institute.

[FN 102] Va. Code § 62.1-44.19.

[FN 103] 9 VAC 25-820. General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia. January 1, 2007.

[FN 104] Va. Code §§ 62.1-44.19:14 and 62.1-44.19:15 (HB1135, 2010).

[FN 105] Va. Code § 10.1-603.8:1 (by HB2168, 2009).

[FN 106] Va. Code § 10.1-603.8:1.K (by SB627, 2010).

[FN 107] See draft WIP, at 6.

[FN 108] These denials included requests by the Craigsville and Boston Water and Sewer WWTPs.

[FN 109] See Final Regulation, Agency Background Document, Virginia Regulatory Town Hall, May 7, 2009.

[FN 110] See *id.*; see also Order, dated October 19, 2010, Frederick-Winchester Service Authority v. Commonwealth, et al., C.A. No. 9-4.7 (Winchester Cir. Ct., VA).

[FN 111] <http://oyster.agecon.vt.edu/>.

[FN 112] Letter from William Early, EPA, Acting Regional Administrator to L. Preston Bryant, Virginia Secretary of Natural Resources. November 4, 2009.

[FN 113] EPA. 2010. A Guide for EPAs Evaluation of Phase I Watershed Implementation Plans. April 2, 2010.

[FN 114] See draft WIP, page 47.

[FN 115] Letter from William Early, EPA, Acting Regional Administrator to L. Preston Bryant, Virginia Secretary of Natural Resources. November 4, 2009.

Response

See response to Comments No. 0034-cp.001.001 and 0431.1.001.004.

Comment ID 0735.001.004

Author Name: Smiley Don

Organization: Utilities, Inc.

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that have made to implement those requirements including constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

See response to Comment No. 0293.1.001.003.

Comment ID 0742.001.008

Author Name: Wells John

Organization: Town of Leesburg, Virginia

In closing, what is distinctly missing from the EPA's Draft TMDL is any appreciation for the major commitments very recently made by the EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement these requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years) . As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs .

Response

See response to Comment No. 0431.1.001.004.

20.4 - WEST VIRGINIA

Comment ID 0185.1.001.020

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

West Virginia

Overall

For transparency of information, West Virginia disclosed a significant amount of specific information related to its current programs and capacities but, similar to the other draft WIPs, failed to commit to specific actions to achieve pollutant allocations under the Bay TMDL. This lack of specific actions makes it difficult to have confidence that the state will achieve its pollution reduction requirements. For the strength of its programs, West Virginia appears to rely on mostly voluntary programs to reduce pollutant discharges from its nonpoint sources but does not provide any information to assess the effectiveness of and compliance with these programs.

The draft WIP would lower phosphorus discharges to a level that is 6 percent below the target allocation. However, the draft WIP still permits nitrogen and sediment allocations to be 18 percent and 38 percent, respectively, more than the level allowed by the target allocation.[FN 26]

In its final WIP, West Virginia must commit to taking specific actions that will ensure achievement of the Bay TMDL and provide more compliance and participation information to ensure that nonpoint sources contribute to the nitrogen, phosphorous, and sediment reductions.

NPDES Permitting

West Virginia disclosed a good deal of information regarding the number of facilities with permits but failed to disclose other permitting information, such as the universe of facilities that require but do not yet have permits and the number of expired or administratively continued permits and when they will be updated. The draft WIP notes a personnel gap in all sectors but does not specify the gap or how or when that gap will be filled.

In the final WIP, West Virginia should include a more thorough capacity and gap analysis and establish goals for ensuring all facilities have the required and up-to-date permits that are consistent with the Bay TMDL.

Enforcement of NPDES Permits

The draft WIP does not contain much enforcement information, apart from noting that there are "regular" inspections of wastewater facilities and that the state is in the process of developing an enforcement protocol for stormwater discharges. Unlike other states, however, West Virginia does include data on the major facilities that are in significant non-compliance.

In the final WIP, West Virginia should include complete enforcement data, such as: the number of physical, onsite inspections per sector; the number of violations and penalty actions and the amount of penalties assessed during the

past year; a description of the enforcement activities by local governments with delegated authority; and a clearer picture of enforcement resources. One avenue for this disclosure is for the West Virginia Legislature to pass legislation requiring an annual report of enforcement activities, such as section 1-301(d) of the Maryland Environment Code.[FN 27]

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

The draft WIP relies on voluntary implementation of best management practices, which are funded by a combination of federal, state, and private monies. The draft WIP does not indicate how successful the voluntary implementation has been. In the final WIP, West Virginia should disclose the acreage currently under voluntary management or best practices and the method of ensuring compliance with funding terms. As a contingency, the state should consider transitioning some voluntary practices into mandatory practices.

Contingencies

The draft WIP does not discuss contingencies related to each sector, and the contingencies that are discussed lack evidence of serious commitment to implement should the primary controls fail or be delayed. The contingency for stormwater, for example, states that the West Virginia legislature "could enact statewide stormwater regulations that address water quality and water volume outside of MS4 areas." While regulating more areas for stormwater would certainly contribute to pollutant reductions, the WIP gives no indication when these regulations be enacted or what areas might qualify for additional regulation.

In the final WIP, West Virginia should include contingencies that cover each sector and should specify when and how these contingencies will be implemented.

Concentrated Animal Feeding Operations

The draft WIP notes that in 2010 West Virginia revised its CAFO regulations to match federal rules. According to EPA, however, the CAFO program has not yet been approved and "there are several issues that need to be addressed in order for EPA to approve." [FN 28] The draft WIP also admits that the universe of facilities that require CAFO permits cannot currently be determined, and that despite the cumulative impact of discharges from AFOs West Virginia does not intend to have universal CAFO designation.

The final WIP should provide an estimate for the date of EPA approval and the subsequent timeline for ensuring that all facilities receive permits that are consistent with the Bay TMDL. West Virginia should also provide more information regarding its CAFO compliance and enforcement program, including inspection frequency, compliance rates, enforcement activities and penalties, and any other relevant information.

Stormwater

The draft WIP includes, notably, specific future goals for active registrations under the permit (decreasing acreage under the construction stormwater general permit to 2025) and a brief discussion of how WV might achieve these goals. However, it does not include information about the authorities of local authorities to verify stormwater discharges and compliance with NPDES permits, nor does it include information regarding the personnel and funding gaps and how the

state will fill them.

In the final WIP, West Virginia should address these gaps and overall provide a more detailed review of its stormwater program and how it will substantively be used to meet the stormwater allocations in the Bay TMDL.

Air Deposition

The draft WIP does not include a discussion of authorities to reduce air deposition of nitrogen. In the final WIP, West Virginia should disclose a list of all major sources of pollutants that contribute to air deposition of nutrients in the Bay, a list of air pollution control authorities that the state plans to use to control air pollution, and an estimate of the funding and personnel gap and a plan with deadlines or commitments to fill that gap.

[FN 26] U.S. E.P.A., "Summary: EPA Evaluation of West Virginia Draft Watershed Implementation Plan" (Sept. 22, 2010) (hereinafter EPA Summary Report) (on file with Yee Huang).

[FN 27] Supra note 3 and accompanying text.

[FN 28] EPA Summary Report, supra note 26.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0257.1.001.007

Author Name: Christian Stephen

Organization: Berkeley County Development Authority, Berkeley County, Martinsburg, West Virginia

The EPA rejection of West Virginia's submitted draft watershed implementation plan is unacceptable.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0382-cp.001.006

Author Name: Combs Tina

Organization: Chamber of Commerce, Martinsburg and Berkeley County, West Virginia

The EPA rejection of West Virginia's submitted draft watershed implementation plan is unacceptable.

Response

See response to Comments No. 0228.1.001.002 and 0545.1.001.005.

Comment ID 0450.1.001.006

Author Name: Yates J.

Organization:

4. Poor communication between US EPA and West Virginia officials in charge of the WIP was stated as a primary reason for confusion and many of the deficiencies in the plan. That is not the fault of the public here in West Virginia. We should not be held accountable for problems that exist between federal and state agencies, nor should we be made to suffer as a result of those problems.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0450.1.001.011

Author Name: Yates J.

Organization:

Poor communication and a full speed ahead mentality at US EPA are indicative of a draconian and arrogant federal program destined for failure. Instead, become partners with the good stewards of the land that make up the proud people of West Virginia. It is much easier to work with us to address these environmental challenges than it is to exert a heavy handed, top down approach that solves nothing. Show us that you are willing to meet us at the water's edge and work together to keep the water we send downstream the cleanest it has been in many many years. This will entail a cultural change at US EPA. One that will require you to begin to trust and understand the agricultural practices that we employ every day, on the land we love and where we raise our children.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0498.1.001.001

Author Name: Walls Brent

Organization: Potomac Riverkeeper

Potomac Riverkeeper Inc (PRK) represents over 2500 members in the Potomac River watershed that support our efforts in protecting water quality in the Potomac 's rivers and streams through enforcement and community action. It is our responsibility to speak for the Potomac River and voice concerns that threaten clean water. PRK acknowledges the attempt of the West Virginia Watershed Implementation Team to develop a plan of action to address the nutrient loading reductions required by the EPA and the Chesapeake Bay Model. However, PRK strongly disagrees with the approach that West Virginia has taken. Specifically, the continued use of voluntary practices within the agricultural community, focusing on targeting Jefferson and Berkeley County agricultural community, requesting to exchange excess phosphorus for a reduction in nitrogen load, the use of nutrient trading as a key component for future offsets.

The agricultural voluntary practices may have had some progress in West Virginia, but many of the rivers and streams in the Potomac Watershed continue to suffer from excessive nutrients creating algae blooms that have significant ecological threats. USGS has found sections in the South Branch Potomac containing intersex fish along with the Shenandoah, the Potomac main stem and now intersex fish have been found in the Susquehanna [FN 1]. Many of these areas are rural landscapes with agriculture as the dominant land use. It is imperative that West Virginia not just concentrate on Jefferson and Berkeley County to satisfy the Bay TMDL nutrient reductions, but all counties in the Potomac Watershed. Focusing on the two Eastern Panhandle counties is unfair to the citizens and tourists that spend thousands of dollars to recreate on rivers like the South Branch Potomac, the Cacapon River, and Patterson Creek. These people and the aquatic species that thrive in the rivers require clean, pollution free water.

West Virginia's draft WIP is deficient in that it failed to commit to specific actions to achieve pollutant allocations under the Bay TMDL, relies on mostly voluntary programs to reduce pollutant discharges from its nonpoint sources, and does not provide any information to assess the effectiveness of and compliance with these programs. The draft WIP would lower phosphorus discharges to a level that is 6 percent below the target allocation. However, the draft WIP still permits nitrogen and sediment allocations to be 18 percent and 38 percent, respectively, more than the level allowed by the target allocation.

West Virginia must commit to taking specific actions that will ensure achievement of the Bay TMDL and provide more compliance and participation information to ensure that nonpoint sources contribute to the nitrogen, phosphorous, and sediment reductions. Additionally, each State has different processes for estimating waterbody impairment and therefore different TMDL development strategies. West Virginia has Biological Impairment TMDLs that looks at nutrients as a function of the impairment, but does not have caps for nitrogen or phosphorous and relies on the reduction of fecal coliform from point sources to reduce nutrients. West Virginia's process for evaluation impairment is the worst of all the States, and consequently, West Virginia is severely lagging behind others in the Potomac watershed. West Virginia needs to develop nutrient TMDLs that set caps for nitrogen and phosphorus for both point source and non-point sources.

Enforcement of NPDES Permits

The draft WIP does not contain much enforcement information, apart from noting that there are "regular" inspections of wastewater facilities and that the state is in the process of developing an enforcement protocol for stormwater discharges. For example, in Berkeley County, two waste water facilities have violated their NPDES permit for close to two years. Both facilities are operated by Berkeley County Public Service Sewer District and have received 16 to 18

"Notice of Violation" reports during State enforcement inspections. No action has been taken by West Virginia, and these two facilities continue to pollute the Opequon Creek.

It is also important to have complete accounting of all nutrient loads. The less significant WWTPs (40,000 gpd or less) need to have their flows measured and nutrient loads calculated in the final WIP.[FN 2]

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

West Virginias' approach to reducing nutrients from agriculture continues to use voluntary programs. Some progress has been made by using voluntary practices; however, the streams and rivers in the West Virginia Potomac Basin continue to be plagued by excessive nutrients and consistent algae blooms, year after year. Voluntary practices are not working. There needs to be a serious attempt in the WIP to control nutrients from farms through regulation. At the very minimum, Nutrient Management Plans need to be required for all farms and be publicly available. Dairy and Beef operations should be required to fence the animals out of the streams and a 40% target should be a two year milestone, not an overall target to be completed by 2025.

Sediment Loading

Sediment reductions are not covered in the West Virginia WIP. Possible sediment reductions should have been illustrated in the WIP even though the allocation number was not provided by EPA until last minute. In this regard, for the purposes of calculating possible sediment reductions in the WIP, the input deck West Virginia submitted to the Bay Model included an "extractive land use " designation that refers to surface mining activities. West Virginia proposed to equate the nutrient and sediment loading to a forest loading. Surface mining activities produce significant sediment and nutrient inputs to rivers and streams during rain events and are not in any way equal to a forest system.

Regulated Stormwater

Sediment and nutrient loadings from regulated stormwater activity is an important area that needs additional State and local support. There were no contingencies listed for these sections except the MS4. Similar to other permitted sections that are regulated by DEP, the WIP portrays the enforcement and compliance of permits are adequate and meet water quality standards, this is not true. There are as many as 631 construction stormwater permits that need to be monitored for BMP management to ensure turbid water does not reach our streams. This is not possible with only one DEP inspector. West Virginia needs to take sediment and nutrients from construction sites and MS4 sites more seriously by hiring more inspectors and working with local governments to provide support.

Non-Regulated Stormwater

The WIP identifies contingencies for this section and the State needs to considered some if not all of these for inclusion in the two-year milestones.

[FN 1] Intersex in Smallmouth Bass Coincident with Population and Agriculture in Potomac Watershed.

<http://www.usgs.gov/newsroom/article.asp?ID=1870>

[FN 2] The concentration of nutrients for smaller and primarily older systems are given an estimated value of 18N and 3P. These concentrations are assumed and can vary depending on the time of year and the source of additional waste,

i.e. septic tank service trucks.

Response

See response to Comment No. 0034-cp.001.001 and 0067.1.001.009

Comment ID 0627-cp.001.002

Author Name: Surkamp Jim

Organization:

We are eighty per cent karst in Jefferson County and the state WV DEP has little real knowledge in terms of how to treat discharges in our soil type, since we are one of the few counties this way.

Response

No Response Required.

Comment ID 0732.001.019

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The text below has been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Comments from the Chesapeake Bay Foundation on West Virginia's Draft Watershed Implementation Plan
November 8, 2010

On behalf of the Chesapeake Bay Foundation's (CBF) more than 200,000 members please accept this letter as formal comment on West Virginia's Chesapeake Bay TMDL Watershed Implementation Plan, A Product of the West Virginia WIP Development Team. Also, we incorporate by reference the comments submitted by CBF, Boesch, et al., and the Choose Clean Water Coalition to Administrator Jackson on November 8, 2010, Docket no. EPA-R03-OW- 2010-0736.

We very much appreciate the dedication of the many state agency staff that contributed to the draft Watershed Implementation Plan (WIP). We further thank the state for the opportunity to comment upon this critical work. Unfortunately, the draft WIP falls short, not only of achieving the necessary load allocations for nitrogen and sediment called for in the draft Chesapeake Bay Total Maximum Daily Load (TMDL), but also in providing the necessary reasonable assurance that the programs, policies, and other necessary actions will be put in place by 2025.

As you know, the process of developing the Bay-wide TMDL actually began over a decade ago with a series of federal judicial consent decrees and settlement agreements over impaired water listings for many watershed states. See *American Canoe v. EPA*, 54 F. Supp. 2d 621 (E.D. Va. 1999). On June 28, 2000, the governors of Virginia, Maryland, and Pennsylvania, the chair of the Chesapeake Bay Commission, and the Mayor of the District of Columbia responded to the various decrees and agreements by signing, with the EPA Administrator, Carol Browner, the Chesapeake 2000 agreement which, among other things, committed to reduce nitrogen, phosphorus, and sediment sufficiently to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. In 2002, Governor Wise of West Virginia signed a formal agreement to work with the other jurisdictions to "achieve the nutrient and sediment reduction targets . . . to achieve the goals of a clean Chesapeake Bay by 2010."

In December 2003, the EPA, West Virginia and the other Bay jurisdictions agreed to the nitrogen, phosphorus, and sediment allocations that became the basis for "tributary strategies," designed to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. West Virginia issued its own tributary strategy in 2005. [FN1] In it, the state explicitly recognizes that failure to achieve the necessary load reductions would result in the development of the TMDL. (p. 11). Unfortunately, the Bay and many of its tidal waters were not de-listed, triggering the need to develop the Bay TMDL - a process in which West Virginia has been a full and cooperative participant.

In addition, many of West Virginia's waters within the Potomac watershed are listed as IML due to unhealthy benthic macroinvertebrate communities or high levels of fecal coliform bacteria. [FN2] Intensive agriculture (i.e., livestock waste) has been implicated as the source of bacteria in many of these streams [FN3] and also as a contributor to the impaired biological communities. [FN4] Practices that the state needs to implement to reduce the impairments to the waters are similar to those needed to reduce nitrogen, sediment and phosphorus loads to the Potomac River and Chesapeake Bay. [FN5] Cleaning up local waters will improve local economy by enhancing recreational opportunities associated with fishing, swimming, etc.

To restore local rivers and streams and, ultimately, the Chesapeake Bay, we strongly encourage the state to provide the necessary details in their WIP for how they will achieve the necessary reductions by 2025, consistent with EPA's correspondence to the Principals' Staff Commit September 11, 2008, November 4, 2009, and April 2, 2010. West Virginia's responsibility to develop an adequate WIP that meets the Bay TMDL allocations and provides reasonable assurances of required pollution reductions is founded on the firm requirements of federal law.

The Clean Water Act (CWA or Act) [FN6] provides the basis on which the draft WIP must be evaluated. Enacted in 1972 to compel the restoration of the nation's waters, [FN7] the CWA requires the states to establish water quality standards and to take the necessary actions, including that by upstream states, to ensure that the waters meet those standards, thereby achieving CWA goals. [FN8] If a state does not promulgate water quality standards or falls short of CWA requirements in doing so, EPA will set the standards for the state. [FN9] The CWA prescribes that of technology-based effluent limitations for most point source discharges [FN10] and, if those measures do not achieve water quality standards, the Act requires the use of water quality-based controls under Section 303(d). [FN11]

The draft WIP forms part of the CWA's § 303(d) TMDL program, which requires identification and listing of all impaired water bodies within a state's borders. For each listed segment, 303(d) and implementing regulations require the state to establish a TMDL for specified pollutants. [FN12] A TMDL is the maximum amount of a pollutant -- from background, point and nonpoint sources, together with a margin of safety -- that the water body can receive and still attain water quality standards. [FN13] When triggered by CWA requirements, the states and EPA are required to establish a TMDL,

as courts have recognized. [FN14]

Once a TMDL is established and approved by EPA, the affected states must adequately implement it to ensure water quality goals are attained. See *Sierra Club v Meiburg*, 296 F.3d 1021 (11th Cir. 2002). Thus, CWA § 303(e)(1) requires each state to have a continuing planning process that results in implementation plans for all navigable waters within state boundaries, which include effluent limitations and compliance schedules as required, § 303(d) TMDLs for pollutants, and "adequate implementation, including schedules of compliance, for revised or new water quality standards," including those of downstream states. [FN15] Resort to a TMDL is the CWA's "backup" strategy for achieving water quality standards; it is invoked when point source permits and best management practices (BMPs) for non-point sources (NPS) have not succeeded. [FN16] Accordingly, EPA may only approve a state-submitted implementation plan that provides assurances it will succeed in "implement[ing] applicable water quality standards." [FN17]

What constitutes reasonable assurances will vary depending on the water body and the pollution sources at issue. [FN18] For waters impaired by both point and nonpoint sources, a TMDL may not allocate WLAs based on an assumption that NPS load reductions will occur unless the TMDL provides reasonable assurances that NPS control measures will achieve expected load reductions. [FN19] The bottom line is clear: To carry out CWA's command to ensure water quality standards are attained, EPA must be able to determine that a plan's claimed load allocations are not based on excessively optimistic hopes concerning the amount of NPS pollutant reductions that will occur. "If the reductions embodied in load allocations are not fully achieved because of a failure to fully implement needed NPS controls, the collective reductions from point and NPS will not result in attainment of the water quality standards." [FN20]

The current draft WIP from West Virginia does not satisfy the requirements of the Clean Water Act. For one, it fails to achieve the necessary allocations for nitrogen and phosphorus and it fails to provide the necessary reasonable assurance that the required reductions will be achieved.

We agree with EPA's assessment of West Virginia's draft WIP. [FN21] Improvements should include more details on how loads from new development will be tracked and offset and specific information on permit limit requirements and compliance schedules for wastewater treatment plants. West Virginia should also strengthen the section dealing with achieving needed reductions from agriculture, which contributes the vast majority of the state's sediment, phosphorus and nitrogen loads to the Bay. The recent draft report by the U.S. Department of Agriculture highlights that although progress has been made in reducing sediment, nutrient and pesticide losses from farm fields through conservation practice implementation in the Chesapeake Bay region, a significant amount of conservation treatment remains to be done to reduce nonpoint agricultural sources of pollution. [FN22] West Virginia is relying heavily on existing conservation programs, but history has shown that the status quo is insufficient. The state must specify more details on how implementation will be accelerated through enforceable or otherwise binding measures.

We support the recommendation to revise the state's phosphorus index. We urge West Virginia to work with scientists in the other Bay jurisdictions to come up with a regional approach to protect water quality. We are pleased to learn that a poultry litter gasification system is currently being piloted and encourage West Virginia to work with the poultry industry to facilitate other waste-to-energy projects.

We sincerely hope that the final WIP submitted to EPA is sufficient, so as to avoid the need for EPA to invoke the

"backstop" provisions in its proposed TMDL.

[FN1] West Virginia's Potomac Tributary Strategy. A Product of the West Virginia Tributary Strategy Stakeholders Working Group. Submitted to the Chesapeake Bay Program. November 7, 2005.

[FN2] [http://www.dep.wv.gov/WWE/watershed/IR/Documents/WV IR 2008 303d List Supplements Only FINi 81202.pdf](http://www.dep.wv.gov/WWE/watershed/IR/Documents/WV_IR_2008_303d_List_Supplements_Only_FINi_81202.pdf)

[FN3] An Ecological Assessment of the Potomac River Direct Drains Watershed. January 2005.

[http://www.dep.wv.gov/WWE/watershed/wqmonitoring/Documents/EcologicalAssessments/EcoAssess Potl 05.pdf](http://www.dep.wv.gov/WWE/watershed/wqmonitoring/Documents/EcologicalAssessments/EcoAssess_Potl_05.pdf)

[FN4] An Ecological Assessment of the South Branch of the Potomac River Watershed. P. 68 . [http://www dep wv.gov/WWE/watershed/wqmonitoring/Documents/EcologicalAssessments/EcoAssess Sot 996.pdf](http://www.dep.wv.gov/WWE/watershed/wqmonitoring/Documents/EcologicalAssessments/EcoAssess_Sot_996.pdf)

[FN5] Pg. 68, citation above.

[FN6] 33 U.S.C. §§ 1251, et seq.

[FN7] 33 U.S.C. §§ 1251(a)(2) and 1313(c)(1) (CWA goal is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters").

[FN8] 33 U.S.C. §§ 1251(a), 1312, 1313; 40 C.F.R. . §§ 122.44, 130.3, 131.2 .

[FN9] 33 U.S.C. §§ 1303(b), (c)(3)-(4).

[FN10] 33 U.S.C. § 1311(b)(1).

[FN11] 33 U.S.C. § 1313(d).

[FN12] 33 U.S.C. § 1313(d)(1)(C). Development of a TMDL is mandatory when triggered by the CWA. See *Nat Resources Defense Council v. Fox*, 909 F. Supp. 153 (S .D .N.Y. 1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in Section 303) ; *Alaska Center for the Environment v. Reilly*, 762 F. Supp. 1422 (W. D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs).

[FN13] See 33 U.S.C. § 1313 (d)(1)(C). Effluent limits in NPDES permits must be consistent with "assumptions and requirements" of any "available waste load allocation" in an approved TMDL. 40 CFR § 122.44(d)(1)(vii)(B) See e.g., *Pronsolino v. Nastri*, 291 F. 3d 1123 (9th Cir. 2002).

[FN14] See e.g., *Scott v. Hammond*, 741 F. 2d 992 (7th, Cir. 1984) (lengthy inaction on the part of a state can constitute a "constructive submittal" of an inadequate TMDL, thereby transferring the duty to prepare to EPA); *Natural Resources Defense Council v. Fox*, 909 F. Supp. 153 (S.D.N.Y.1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in CWA § 303); *Alaska Center for the Environment v. Reilly*, 762 F. Supp. 1422 (W.D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs); *Sierra Club v. Hankinson*, 939 F. Supp. 872, 873 (N.D. Ga. 1996) (To attain CWA goals, EPA must ensure that TMDLs are implemented).

[FN15] See 33 U.S.C. §§ 1251(a), 1313(e)(1) and 1313(e)(3)(C),(F); 40 C.F.R. Part 130.6(b),(c) (TMDLs must be included in Water Quality Management Plans used to direct implementation).

[FN16] See 33 U.S.C. § 1313(d)(1)(A); 40 C.F.R. 130.7(b)(1).

[FN17] See 33 U.S.C. § 1313(d)(2).

[FN18] See *Guidelines for Water Quality-Based Decisions: The TMDL Process* (EPA Office of Water Regulations and Standards) ("1991 Guidance").

[FN19] *Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992*, U.S. E.P.A. (2002), available at <http://www.epa.gov/owow/tmdl/guidance/final52002.html>.

[FN20] See Correspondence, dated November 9, 2009, from EPA to Secretary Preston Bryant, Chair, of the Principals' Staff Committee.

[FN21] http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/WIPEVALUATIONS/PortfolioOfDraftWIPs.pdf

[FN22] USDA October 2010. Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Region

Response

See response to Comment No. 0034-cp.001.001

20.5 - MARYLAND**Comment ID 0108.001.002**

Author Name: Kerstetter Donald

Organization: Trappe Landing Farm and Native Sanctuary

There are 4 actions that must be initiated now to begin to alleviate 60 years of unsustainable chemical farming and soil mismanagement. None of these are mentioned in Maryland's TMDL response. The first is the significant reduction in farm field fertilizer application rates, the second is the pyrolysis of farm animal manure, the third is a minimum 3 crop rotation plus mandatory winter cover crops and four is to end all corn subsidies including ethanol.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.016

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Maryland

Overall

Maryland's draft Phase I Watershed Implementation Plan (WIP) is an inventory of the state's pollutant control programs with no substantive commitment to implementing or bolstering specific programs. For transparency of information, Maryland discloses an average amount of information, which is somewhat surprising because much of the vital information already exists as part of its annual enforcement and compliance report. For the strength of its programs, Maryland lists a menu of pollutant control options that will enable the state to meet 130 percent of its TMDL load allocation but does not commit to any of those options. The options are not accompanied by funding commitments or deadlines for implementation.

The WIP was "expressly written to solicit public comments on a wide range of pollution control strategy options.... [T]he

options chosen to implement the needed reductions will be selected with the benefit of the public comments..." Public comment and input is undoubtedly valuable, but ultimately Maryland must make the tough decisions that protect the environment and lead to a restored Bay for present and future generations. By leaving the particulars open to debate, Maryland is likely to receive less focused and less helpful comments.

The draft WIP meets the nitrogen and phosphorus allocations and reduces the sediment pollution to a level that is 26 percent below the target allocation.[FN 12] Maryland's final Phase I WIP should include the permitting and enforcement information already contained in its annual compliance and enforcement report to establish its baseline capacity. The final Phase I WIP should also contain contingencies for slow or delayed implementation of primary pollutant controls.

NPDES Permitting

In the draft WIP, Maryland included some information about its permitting program, such as 526 Notices-of-Intent for facilities that are seeking coverage under the CAFO program, but failed to disclose information about existing facilities without permits, if any, or existing facilities with expired or administratively continued permits. Much of this information already exists in Maryland's FY 2009 Compliance and Enforcement Report, so MDE should collect this information and present it in the final WIP. Maryland also failed to establish deadlines, timelines, or qualitative goals for updating and reissuing expired and administratively continued NPDES permits.

Enforcement of NPDES Permits

Under section 1-301(d) of the Maryland Environment Code, MDE is required to publish a remarkable amount of information in its annual compliance and enforcement report.[FN 13] Earlier this year CPR published a report on MDE's NPDES program and recommended that the agency make public enforcement and compliance actions by local governments with delegated authority. MDE provides a helpful table, not included in its annual report, that breaks down inspection and enforcement data at the county, municipal, and state levels for the sediment and erosion control program. Appendix H of the WIP shows a wide range of permits-to-inspector ratios and more than 360 inspections per inspector.

Maryland's draft WIP does not provide any internal assessment of the effectiveness of its program, nor does it provide sufficient information to judge the strength of its enforcement program. Earlier this year, CPR conducted an evaluation of enforcement trends and found that MDE is significantly underfunded and its enforcement program is not designed to ensure compliance with NPDES permits and does not take advantage of citizen suits as additional enforcement assistance.[FN 14] For example, between 2000 and 2009, the overall workforce budget for the Water Management Administration declined nearly 25 percent, when adjusted for inflation, and coincided with a doubling of permits-in-effect. The average penalty obtained per enforcement action was striking low, roughly \$1,260.

Maryland's final WIP should explain how it intends to improve its enforcement program and address these issues as they relate to the Bay.

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

The draft WIP lists the different verification schedules for different federal and state funds. For example, inspectors conduct random spot checks of 10 percent of best management practices funded by the MACS program. The final WIP

should include information regarding participation and effectiveness of these nonpoint source pollutant control activities. In addition, the draft WIP does not cite dedicated funding for monitoring and verification. This information should be included in the final Phase I WIP.

Contingencies

Overall the draft WIP fails to discuss what contingencies Maryland will implement for slow or incomplete implementation. EPA's Expectations letter specified that the WIPs should contain specific plans to implement contingencies in the event of delayed adoption of new or revised legislation or regulations, inadequate compliance or participation rates, or adverse changes in land use or development rates.[FN 15]

In the final WIP, Maryland should ensure that its contingencies are clearly identified and are coordinated with specific failures, have timely implementation deadlines, are effective, and have legal authority to require implementation.

Concentrated Animal Feeding Operations

Maryland should be commended for having a CAFO NPDES program that is up-to-date with federal regulations, but it must now focus on issuing permits to all the facilities that qualify as CAFOs and work towards ensuring compliance with the permit terms. By not disclosing the total number of CAFO facilities, how many of those have permits and how many still need permits, and when all the facilities that require permits will have them, Maryland's draft WIP undermines the assurance that the NPDES program provides. In the final WIP, Maryland should provide a timeline or schedule for issuing CAFO NPDES permits.

The draft WIP also fails to disclose gaps related to funding and personnel needed to establish and maintain an effective CAFO NPDES permitting program. CAFO permits issued after the Bay TMDL is finalized must be consistent with the wasteload allocations in the TMDL.

Stormwater

The draft WIP includes a final copy of the Montgomery County final permit, which provides a useful insight into the county's delegated enforcement authority. For example, the county "shall conduct preventative maintenance of all stormwater management facilities at least on a triennial basis" and make annual reports of enforcement and compliance activities.[FN 16] If in fact local authorities have an inspection rate of 30 percent, this rate would exceed the rate recommended by EPA.

As with other sectors, however, the draft WIP does not disclose the estimated funding and personnel gap, if any, and does not explain how this gap will be filled to ensure that the state has and maintains an effective stormwater program.

Air Deposition

The draft WIP provides useful information regarding the air deposition of nitrogen by major river basin and lists the relevant state air programs that can be used to reduce pollutant loadings. As with other sectors, however, the draft WIP fails to explicitly state how these programs will be bolstered in order to achieve adequate load reductions. The draft WIP

gives no indication of whether MDE currently has adequate funding and personnel to run an effective air pollution prevention program and thus does not provide assurance that reductions from air deposition will occur.

[FN 12] U.S. E.P.A., "Summary: EPA Evaluation of Maryland Draft Watershed Implementation Plan" (Sept. 22, 2010) (on file with Yee Huang).

[FN 13] Md. Environ. Code § 1-301(d).

[FN 14] See attached, Center for Progressive Reform, *Failing the Bay: CWA Enforcement In Maryland Falling Short* (April 2010), available at http://www.progressivereform.org/articles/mde_report_1004FINALApril.pdf. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0185.2]

[FN 15] Expectations Letter, *supra* note 1.

[FN 16] Maryland's Phase I Watershed Implementation Plan for the Chesapeake Bay Total Maximum Daily Load, Appendix D (Sept. 1, 2010).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.007

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- Although very difficult to measure as an option for load reductions, educational outreach for the public and elected officials is a vital component of achieving these reductions. Measures to provide effective outreach should be incorporated to the WIP. If these stakeholders better understand what needs to be done and why, it is more likely that measures will be put in place to achieve the targets.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.012

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- The plan suggests the amount of additional capacity that would be needed to fully implement the options and achieve the target loads. However, no cost information is provided in the resource assessment. Local jurisdictions will not be able to adequately choose and commit to certain options without cost information and estimates of additional capacity needed in other areas as well. It is also critical to provide local jurisdictions with an estimate of the expected load

reductions from each option.

- Pg 2-2, 4th para: Please clarify in the text whether the 2-year milestones represent an acceleration of current capacity or just represent an acceleration of the EPA's schedule to get measures in place.
- Pg 207, 6th para: Depending on the number of septic systems to be replaced, upgrading to ENR standards may be cost prohibitive. Any upgrade to better treatment is a positive. Monies should be available for upgrades even if not to ENR.
- Pg 2-8, Staffing Capacity: The implementation of septic system upgrades is predominantly administered and managed through the local Health Departments. If an accelerated effort to upgrade septic systems is to be successful, capacity needs at the local Health Department level have to be considered. This is again an issue related to local funding capacities and resource allocation.
- Pg 2-13, 1st para: The text refers to changes in the NPDES Phase II permits. In addition, a statement is made regarding a funding strategy. Specifics regarding the changes and funding mechanisms should be provided as part of the Phase I WIP. This is an example of the critical details which the current draft lacks that are desperately needed by local jurisdictions.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.013

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- Offsets for future loads are placed in three categories. The moderate per capita load category refers to areas served by state-of-the-art sewage treatment. If "state-of-the-art" sewage treatment means ENR, it will be difficult to achieve Smart Growth in these smaller communities without significant funding assistance to upgrade minor systems.
- Pg 3-3, Figure 3.1 & footnote: Figure 3.1 shows that 7.21 lb N/yr is generated per new HH on septic. The footnote says that 12.16 lbs N/yr is generated per new household on septic. The numbers do not appear to match. Please provide more description related to the differences between these two numbers to clarify why they are different.
- Pg 3-5, 2nd para & footnote: At quick reading, this paragraph seems to conflict with the footnote. The text reads that growth on sewer by 2020 is expected to exceed permitted WWTP capacity by about 40,000 households. The footnote indicates that sewer demand would be expected to exceed current permitted WWTP capacity by about 62,000 households. Please explain the difference between these two figures to eliminate the confusion.
- Pg 3-5, 1st para: The text references the need for septic system upgrades, stormwater retrofits, and WWTP upgrades as "must be part of the solution" activities. The text then states "but many will cost more per pound of nitrogen reduced than targeted options." This appears to be an excellent location for cost estimates and cost/benefit analysis. Suggest this section of the WIP be expanded to include a specific discussion regarding those items.
- Pg 3-6, bullet 3: One criterion guiding offset strategies is to ensure an adequate supply of offset generators. Please explain how an adequate supply will be achieved.
- Pg 3-6, last para: The text appears to suggest that target loads by sector might be increased so that there is room in the allocation for new growth as well. Please include text clarifying if this is the intent.

- Pg 3-8, 2nd para: To achieve a better picture of actual loads and reductions, incorporating local land use and septic data to the Bay model should be an option.
- Pg 3-8, 3rd para: Please clarify if jurisdictions or watersheds that already exceed the caps will still get an allocation for future growth.
- Pg 3-8, Bullets: It is not clear from the descriptive text which government agency or body will be responsible for requiring, implementing, tracking, and monitoring the bulleted items. Please explain and provide details.
- Pg 3-8, Bullets: Please include a note indicating if offsets will still be allowed in areas where the WWTPs exceed their caps.
- Pg 3-9, 3rd para: Please include a definition of "targeted areas" as it relates to septic system nitrogen updates and how these targeted areas are defined.
- Pg 3-9, Sect 3.4: The preliminary schedule to develop offset policies and procedures for septic systems and land development seems to be rather long given the 2017 and 2020 target dates and the length of time needed to get these measures in place on the ground.
- Pg 3-10, 2nd para: The text indicates that the BRF was instituted to fully fund the ENR upgrades to major WWTPs. If this is a commitment on the State's part and already included in the 2-year milestones, additional funding needs to be found or made available to ensure this measure/option can be fully implemented.
- Pg 3-10, 4th para: The text indicates that offsets are expected to primarily come from the agricultural sector. Some consideration should be given to what happens if the agricultural sector cannot meet its allocations and where that will be made up. If the agricultural sector does not meet its allocations, information should be included to identify how the offset program would work and how this would impact meeting the total allocation for a watershed.
- Pg 3-10, 2013: It seems a bit optimistic to believe offset policies, many of which may require legislative approval, can be in place in just two years.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.014

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- Pg ES-10, 1st para: The text indicates that an 88 percent increase in capacity is needed to meet the Interim Target for nitrogen. It seems that, in order to determine this number, some background data and information must have been evaluated to identify current capacity and the gap in capacity. Please include the background information in the text of Element 4. It would also be helpful to include the figures from the Executive Summary in the text of Element 4 as well.
- It would be very helpful if the Bay model is made available to local jurisdictions. This would help local jurisdictions to monitor and track progress, and make adjustments at the local level. It would also help to customize data at the local level to provide results that are more indicative of progress for that jurisdiction by accounting for practices and capacity not otherwise individualized in the model. Understandably, the local data would need to be shared back at the State level to incorporate into regional and State monitoring.
- Pg 4-1, 1st bullet: It is not clear from the text how the current loads from the sector were estimated. Please explain

somewhere if the load estimate accounts for practices already in place in Carroll County that may not be elsewhere across the board.

- Pg 4-1, 2nd bullet: The text references "current programmatic capacity to reduce loads." It seems that information on specific policies, staffing, costs, programs, etc. must have been collected and evaluated to determine this capacity. This information should be included so that local jurisdictions understand exactly what is included in the "current capacity."
- Pg 4-1, 3rd bullet: Please describe in more detail how the future growth was estimated, what data was used to do so, and what the baselines and basic assumptions were. If current growth potential is not accounted for, some of the actions that might need to take place to reduce loads cannot be properly credited to the jurisdiction (such as downzoning or TDR).
- Pg 4-1, footnote: The State may desire to steer away from the controversy of being one to set variable reductions between sectors. However, if certain sectors clearly have more or less feasible capacity for reduction, this should be reflected in the percentages now.
- Pg 4-2, tables: It would be helpful to include some explanation of why the numbers are so different between the federal and local data. It seems that the estimates would be more relevant if local data is used, assuming it is more complete or detailed than the federal data. Please consider how local data may be able to be incorporated to the model in a useful manner that allows a better estimate of local impacts and reductions. As an alternative, the local jurisdictions could work closely with the State to refine the State data. We understand that the model is already very complicated, but the results and estimated reductions do have significant impacts on local jurisdictions and property owners.
- Pg 4-3, 2nd para: If we wait until Phase II or beyond to refine land use data, it may not be too late to adjust allocations between sectors, but it will be too late to adjust total reductions needed. Work should take place with the local jurisdictions to refine the land use data before the Bay TMDL and total reductions needed are set.
- Pg 4-3, 3rd para: The end of this paragraph seems to imply that converting farmland for development is beneficial in terms of load reductions. Yet, this is clearly not the goal. If this is not what was meant, please reword to clarify so that it is not misinterpreted.
- Pg 4-3, 6th para: What if, regardless of penalties, the funds just are not there to put all the measures in place needed to achieve the targets?
- Pg 4-4, 1st para: The figures presented here and in Table 4.2 raise several questions. Incorporating the answers to these questions will help local jurisdictions understand what is already assumed to be done versus what can be counted as a reduction because it wasn't included in the baseline data.
Does the baseline take into account practices currently in place?
Are there actual loads or estimated?
If estimated, couldn't the model identify a greater reduction than actually needed by a local jurisdiction if these practices were accounted for?
If the loads are actual, the baseline and the reductions should already reflect all practices currently in place, which theoretically would reduce the amount of reductions needed. If they are estimates, and all current practices are not accounted for, the additional reductions these practices would represent should be allowed to count toward the needed reductions.
- Pg 4-4, Table 4.2: Please clarify in the text whether the TMDL is set for delivered loads or EOS or both?
- Pg 4-5, 2nd para: Table 4.4 shows the percentage reductions needed by source sector. However, the WIP indicates that reductions will be spread out across the sectors in equal percentages. It seems that equal percentages are not necessarily the most effective way to distribute the allocations. It might be more useful to take the identified percentage reductions needed by sector, and then evaluate the feasibility and capacity of each to make those reductions, and then make some adjustments to reflect feasibilities.
- Pg 4-6, Key Assumptions: The first bullet states that point source loads do not account for the shortfall in ENR

upgrade funding. However, this is a critical factor in the feasibility of getting these measures in place by 2017.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.015

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- The biggest question that remains for each Option/Action is on the anticipated cost and expected load reductions of each. This information is needed by local jurisdictions to effectively make decisions on the feasibility of certain commitments expected for the Phase 2 WIP.
- Pg 5-5, Point Sources, Activity 7: Upgrade of Large Minor WWTPs - The cost of upgrades to these systems, which can least afford the expense, seems questionable, and the O&M may be beyond the jurisdiction's expertise and budget.
- Pg 5-5, Urban Stormwater, Option 1: This requirement will be an extreme challenge to most jurisdictions. Retrofit costs can run up to \$20,000/impervious acre restored.
- Pg 5-5, Urban Stormwater, Options 2 & 3: Not feasible by any means in the timeframe designated.
- Pg 5-6, Urban Stormwater, Activity 4: MS4 Phase II - The proposed 20 percent level may not be achievable in the timeframe designated. There will be significant cost and resource issues with this item.
- Pg 5-7, Urban Stormwater, Activity 11: Urban Tree Canopy - It is difficult to reason where this option would provide any significant benefit to reductions in nitrogen loading.
- Pg 5-7, Septics, Activity 3: Septic hookup to ENR plants - The municipalities, which own and operate most of the public WWTPs in Carroll County, have already identified municipal annexation areas per the requirements of Article 66B to develop a Municipal Growth Element (MGE). Through the process of developing the MGE, the municipalities have identified areas that are expected to hook up to a public sewer system when the land is annexed to the municipality. Any other systems have either 1) not been planned for service and/or 2) will not be in an area developed densely enough to make the cost of extending services and hookups feasible.
- Pg 5-7, Septics, Activity 5: All systems within 1,000 feet of a stream - It would be helpful to clarify if this activity refers to all (including existing) septic systems or just new septic systems. This activity would be an extremely difficult task to implement and achieve (legally, technically, and financially).
- Pg 5-8, Best Farming Practices, Activities 1 & 2: Cover Crops - The program/practice is a critical component of the WIP. Are the options presented sustainable? Can the level of acres planted and the funds provided continue in perpetuity? Please clarify.
- Pg 5-8, Best Farming Practices, Activity 4: Soil Conservation & Water Quality Plans - How does a plan to do conservation practices generate specific loading reductions? Does this option, and loading reductions assigned, duplicate other practices? It appears many of the agricultural strategies are assigned reductions multiple times. Please clarify.
- Pg 5-10, Best Farming Practices, Activity 13: Stream Protection without Fencing - Does this practice truly achieve nutrient/sediment reductions? Please clarify.

- Pg 5-18, Air: The draft document indicates that roughly one third of the pollutant loads come from atmospheric deposition. If this is the case, it seems that more measures should be identified and added to address air quality. Additionally, if atmospheric deposition represents such a large percentage of the source, are the allocations to other source sectors reduced by the amount of each sector's NPS loads that are generated by air pollution?

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.016

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- The text indicates that data is reported through various State agencies and ultimately is filtered to BayStat. BayStat is then intended to be able to provide up-to-date data on the progress toward milestones. Local jurisdictions need to have access to at least view this data. It would be useful to add some description of how local jurisdictions can access, use, and interpret the data to identify progress on any given segment or sector.
- MDPProperty View is used for various aspects of tracking new development. However, in our experience that the database, and particularly the parcel lines on the tax maps to match a property account, have a high degree of inaccuracy. Carroll County recently completed a project to update and increase the accuracy of its parcel data/layer. Local jurisdictions should have the option to provide their own data to better reflect actual conditions on the ground at the local level.
- Pg 6-16, last para: With two-year milestones and with the 2017 and 2010 timeframes, the statewide land use layer should be updated much more frequently than every five years. Given the pace at which measures need to be in place and reductions able to be measured, the land use layer should be updated annually or on an ongoing basis. Local data should be incorporated as much as possible to reflect as many practices as possible that contribute to reductions.
- Pg 6-17, 1st para: The text indicates that local zoning is incorporated to the MDP Growth Simulation Model. It states that longer-term change adjustment is needed. Agreed. The WIP should include options to refine the growth model (as well as the Bay model) to more closely reflect on-the-ground conditions. Likely, this will result in many more land use categories, and therefore more impervious cover rates, loading rates, etc. However, this further refinement would be better able to capture changes in loading resulting from various land uses and BMPs. These adjustments would be able to credit local land use and programs to a great extent if these adjustments are also coordinated with local jurisdictions.
- Pg 6-17, 1st para: The growth model incorporates increases in septic tanks. This information must come from the local Health Department. It would be very helpful if the data was also made available to the local jurisdiction. As the septic tank regulation is a State function, the local jurisdictions and the State need to coordinate data for the monitoring of progress on the Bay and local TMDLs.
- Pg 6-17, 2nd para: The intent to collect more timely data on new development from local jurisdictions (through the annual report) will help keep data current and reflect local conditions. However, local jurisdictions would benefit greatly from detailed yet flexible guidance that spells out the kind of data that should be included. Guidance should be provided to jurisdictions in a timely manner so it can be incorporated in a reasonable timeframe.
- Pg 6-18, 1st para: A common reporting system to report implementation measures will help provide consistent data.

We request, however, that the local jurisdictions be involved in developing this reporting system so it can be incorporate data types and levels available at the local level. Access by locals to input the data will be more effective and efficient, but the data requested must be data that is actually available.

- Pg 6-19, flow chart: The chart does not include MDP and how the Growth Simulation Model fits in.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.017

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- It is critical that local jurisdictions be notified as to the State's response to this item. Therefore, prior to submittal to EPA, the State should provide local governments with text for this section.
- The direction that the EPA and the State will take on this item is crucial information to decision-making in terms of commitments.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0200.1.001.018

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- The text provides a discussion on the WIP Phase II effort. Specific discussion is needed regarding the sub-allocation process by geographic area and sector. While no specific numbers are provided, the methodology to derive numbers is presented. The approach by the State seems reasonable and fair. Even if the load allocation was calculated equitably, reductions may not be able to be achieved as such, which will continue to be a significant issue for implementation.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0252.1.001.002

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

The City appreciates the State and Federal efforts to listen to the localities that will need to comply with the upcoming Phase IT Watershed Improvement Plan in Maryland.

We are working closely with Cumberland, Allegany County, and a continuing work group in an effort to be prepared for the intensive Phase IT negotiations that are planned to begin in January 2011

Response

Thank you for your comment. No response required.

Comment ID 0252.1.001.009

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

Frostburg does consider that there is a very heavy learning curve required in a short period of time. The smaller municipalities will need to rely heavily on our host County staff to address the mandates that will appear with Phase II.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0252.1.001.015

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

Frostburg has a history of mining impacts; our biggest challenges are acid mine drainage and the effects of combined sewers, which ironically tend to moderate the mine runoff. Other TMDL programs will be needed in the future to address other stressor substances. The City is concerned with another wave of enforcement that could overlap the Bay TMDL enforcement program. Our current and planned efforts reflected in a draft Comprehensive Plan update to be completed in 2011 include the following: continued focus on CSO 'elimination' projects; stepped up stormwater permitting process to ensure the new Environmental Site Design to the Maximum Extent Practical is required and that the measures are properly installed and maintained over time; updating the erosion and sediment control ordinance in conformance with new Maryland regulations and integrate our current Soil Conservation District partnership with new local capabilities to ensure proper review and enforcement of measures approved; and address a new stream restoration and vegetation

program along Sand Spring Run that could be planned with an integrated stream-side trail network over time. This latter builds on our partnership in the Savage River watershed with the Canaan Valley Institute to restore the site of the old original impoundment to restore proper stream flow and vegetation in Garrett County. Finally, our sanitary flows are sent to the Cumberland regional treatment plant that has been a point source focus in Maryland, recently completed by upgrade to ENR capability.

Response

EPA appreciates the concern of overlapping TMDLs and this is discussed in Section 2 of the final TMDL report. For watersheds and water bodies that have both local TMDLs and the Chesapeake Bay TMDL for nitrogen, phosphorous, and sediment, the more stringent of the TMDLs will apply. If Bay segments are impaired for other pollutants, EPA expects that jurisdictions will develop separate TMDLs to address those pollutants.

Comment ID 0255.1.001.004

Author Name: Gumm Gary

Organization: Washington Suburban Sanitary Commission (WSSC)

The Draft Bay TMDL incorporation of the Maryland WIP and the point source load allocations for major municipal wastewater treatment plant NPDES discharges directly impacts WSSC by assigning specific total annual nitrogen, total annual phosphorus, and sediment allocations that must be met by each facility. The specific allocations are shown in the Table contained in Section 9 of the Draft TMDL and the individual WWTPs are shown as follows:

Marlboro Meadows, Parkway, and Western Branch (p.9-32)

Damascus (p.9-33)

Seneca (p.9-34)

Blue Plains and Piscataway (p.9-36)

WSSC has been in direct contact with the Maryland Department of the Environment (MOE) on the inaccuracies in the assigned load allocations shown in Section 9 and we are commenting concurrently directly to MOE as there are also similar inaccuracies in Appendix B that was attached to the draft Maryland WIP submitted to EPA. It is our understanding that MOE will be providing EPA with the revisions to their Appendix B and requesting similar changes to Section 9 of the Draft Bay TMDL so that the two documents correctly show the load allocations that are consistent with the current NPDES permits for each facility.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0255.1.001.006

Author Name: Gumm Gary

Organization: Washington Suburban Sanitary Commission (WSSC)

Finally, WSSC is committed to proceeding with the upgrades to our WWTPS to meet the requirements of the Draft Bay TMDL as specified in the Maryland Watershed Implementation Plan. We are equally committed to providing the financial support necessary to realize those improvements and to providing an equitable share of the cost of the Blue Plains WWTP upgrade to ENR consistent with the funding formula for the Blue Plains users in the Intermunicipal Agreement that govern those commitments.

Response

Thank you for your comment. EPA's evaluation of the final Phase I WIPs can be found in Section 8 of the final TMDL report.

Comment ID 0256.1.001.004

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

We would like to commend the State of Maryland for reaching out to local governments in the preparation of their WIP. In fact, their ongoing pilot projects in Caroline and Anne Arundel Counties, could serve as a model for state consultation with local governments. All of this becomes much more critical for the Phase 2 WIPs due in 2011. If TMDL loadings are allocated down to a county or sub-jurisdictional level, consultation with local governments before those decisions are made should be mandatory for all states.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0272.2.001.005

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

MAMWA Opposes Maryland's Proposed Treatment of the Largest Minor Municipal Treatment Plants

In order to fill the gap between current programs (capacities) and the State's target loadings for nutrients and sediment, Maryland has raised the following potential gap-filling measure: "Evaluate the feasibility of upgrading five of the largest minor municipal WWTPs to ENR treatment by 2017." [FN12]

Although the State has not named particular plants that it is considering for potentially mandatory upgrades, it has suggested that it would select plants based upon "load capacity needs, community interest, technical feasibility and cost-effectiveness." The State estimates that the loading reduction associated with this option would be about 45,000 pounds per year of nitrogen. [FN13] The cost would be approximately \$58 million.[FN14]

Mandating upgrades for minor municipal WWTPs would be a significant departure from the current Point Source Strategy, which addresses non-significant (small) WWTPs as follows:

Non-significant wastewater treatment plants are those with design capacity of less than 500,000 gallons per day. Annual nutrient loads are based on design capacity or projected 2020 flow, whichever is less, and concentration of 18 mg/l total nitrogen and 3 mg/l total phosphorus. The 2020 projected flows were based on the county growth rates provided by the Maryland Department of Planning. Expanding non-significant facilities cannot exceed 6,100 lbs/year in nitrogen and 457 lbs/year in phosphorus. [FN15]

In other words, unless a facility is expanding, it is not required to achieve WLAs equivalent to ENR concentration levels.

[FN12] Draft WIP at 5-21.

[FN13] Draft WIP at 5-21.

[FN14] Draft WIP at ES-14.

[FN15] Tributary Strategy Implementation Plan at 7.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0272.2.001.007

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

MAMWA Requests Representation at P-Index Discussions

The State has suggested that it will be "...convening a technical workshop, hosted by the University of Maryland's College of Agriculture and Natural Resources" to discuss "...relevant recent scientific advances, evaluation of the performance of the current P-Index, and evaluation of alternative approaches for revision of the P-Index." [FN18]

Although MAMWA can only comment broadly on this general concept of revising the P-index because the work to potentially revise the index has not begun, this is an important issue for MAMWA members who manage biosolids

under the EPA and State-approved method of land application. MAMWA requests the opportunity to participate in the technical workshop mentioned and believe the MAMWA membership can offer expertise with regard to the referenced issues.

In addition, MAMWA believes the WIP should include a strategy to promote and sustain biosolids land application, which is certainly environmentally beneficial as compared to the alternative of inorganic chemical fertilizer use for the following reasons:

- Biosolids-based nutrients are released more slowly because they are not as soluble as nutrients found in chemical fertilizers.
- Biosolids land application includes many safeguards including mandatory setbacks from water resources, soil conservation and soil erosion control practices, nutrient management requirements, and record keeping and reporting requirements. These safeguards exceed those required for chemical fertilizer or manure applications.
- Biosolids land application is carefully regulated at the federal and state level and subject to enforcement in the event of noncompliance.

[FN18] Draft WIP at 5-49.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0280.1.001.001

Author Name: Newcomb Jim

Organization: Dorchester Soil Conservation District

The Dorchester Soil Conservation District has reviewed Maryland's Watershed Implementation Plan (WIP) and would like to make the following comments.

- There are many BMP's and workloads mentioned that are not currently feasible, due to technology and/or staffing. To be successful we need to have the staff trained and available in order to get the practice on the ground. In addition many of the new emerging technologies are not ready for wholesale use yet and seem to be viewed as ready to roll in the language of the WIP.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0359.1.001.002

Author Name: Candland Matthew

Organization: Carroll County Water Resources Coordination Council (WRCC), Carroll County, Maryland

Our group has reviewed technical comments provided by Carroll County staff. The WRCC supports these comments (enclosed) and respectfully submit them on behalf of our nine jurisdictions.

there is no way to translate the very broad outline provided into concrete actions with specific costs. At present, the regulations are simply too broad and open-ended for meaningful review and comment.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0388.1.001.001

Author Name: Legg Peter

Organization: Advocates for Herring Bay (AHB)

The Advocates for Herring Bay (AHB) strongly support efforts by the State of Maryland to meet and maintain the limits established by the Environmental Protection Agency (EPA) on pollutant loads to the Chesapeake Bay. The measures outlined in the state's September 24, 2010 draft Watershed Implementation Plan (WIP) for the Chesapeake Bay Total Maximum Daily Load (TMDL) would, if implemented effectively, help us make progress toward those goals. What is unclear, however, is how the wide range of options in the draft plan will produce tangible results. To assist in that effort, we offer the following five recommendations for the final plan:

1. Provide Guidance on Funding for Engineering and Management Strategies

Maryland's draft plan correctly emphasizes the most cost-effective measures, such as accelerating the deployment of enhanced nutrient reduction technologies at major wastewater treatment plants and expanding the use of agricultural cover crops. AHB supports those measures as well as proposed investments in stormwater management, buffer restoration, and septic system upgrades in the Critical Area.

Implementing the WIP will require substantial financial resources. While state executive branch agencies cannot make monetary commitments on behalf of the state, they can help build a consensus for increasing the state's investment by providing estimates of the costs and benefits of what is being proposed, at least for the near term. As taxpayers, we urge our state and local governments to secure the necessary financing, starting in 2012. Specifically, we support setting firm funding targets for state and local initiatives (for example, for Bay Restoration Fund, the Chesapeake and Atlantic Coastal Bays Trust Fund, and local restoration funds); raising fees if necessary to actually meet those targets; and treating those proceeds as dedicated sources of funding that cannot be diverted to other governmental purposes.

2. Avoid Unintentionally Encouraging Growth in the Critical Area

We question the plan's unconditional support for connecting failing septic systems to waste water treatment plants, particularly in the Critical Area. Under the state's Smart Growth policies, development is directed to areas served by sewers. Thus, adding sewer capacity in the Critical Area could channel additional development to the same environmentally sensitive areas the state promises to protect and restore. In addition, areas with "antiquated lots," such as those that were subdivided in the 1920s at levels of density much higher than would be allowed today, would come under intense pressure for in-fill development because most pre-existing property rights were grandfathered under the 1984 Critical Area law.

Decisions about extending sewer service should be made on a case-by-case basis, based on a holistic assessment of the environmental impacts and benefits. In our view, new sewer connections should not be allowed in the Critical Area except in cases where the added capacity would have a negligible effect on the development potential and ecological integrity of the area being served. If sewer service extension is the only feasible way to address widespread failures, state or local governments should mitigate the ecological risks by purchasing development rights or attaching new restrictions on development in the Critical Area.

3. Develop Laws and Incentives for Preserving Existing Natural Filtration Systems

Natural filtration systems-streamside buffers, forests, and wetlands-are the most cost-effective methods for reducing the amount of pollution getting into our streams and waterways. While we are pleased that the state plans to spend funds to revitalize buffers and wetlands, we believe that more needs to be done to strengthen protections for existing habitats that are providing those ecological services at no cost to taxpayers. The final plan should include more proactive initiatives to protect existing filtration areas; possible strategies could include strictly enforced statewide performance standards for protecting all stream buffers from development impacts.

4. Develop Laws and Incentives for Minimizing Impacts of Growth

As noted in Chapter 3, existing land use policies fail to account for the pollution loads associated with different types of development, which exacerbates the adverse impacts of population growth. To address this shortcoming, the plan recommends statewide policies that would assign per-capita pollution loading factors to different types of development and require those with the highest environmental cost to be offset by certain mitigation measures.

We support adoption of land-use policies that incorporate per-capita loading factors. Without such incentives, the Bay will continue to suffer a "death by a thousand cuts." To be effective, however, these guidelines must be incorporated into state and local land-use laws. We urge the state to promptly enact the legislative changes needed to apply this approach statewide and to craft conforming ordinances for local governments.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0410.1.001.011

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Many of the controls that will be employed to comply with the TMDL and WIP will impact US Waters, involving permitting agencies such as the US Army Corps of Engineers, US Fish and Wildlife, US Marine Fisheries and the MDE Wetlands and Waterways division. SHA suggests that they must be recognized as partners in the WIP development process to ensure compliance within a relatively short implementation period.

Currently SHA experiences a 1 to 3 year timeframe in obtaining permits for stormwater, sediment control and nontidal wetlands impacts. We would also suggest that the permit process itself should be integrated into the implementation process in order to facilitate achievement of the desired goals. Success of the implementation plans depends upon the ability to get the proposed projects permitted, funded and constructed at a much faster rate. SHA has great experiences of partnership working with the regulators however, these hard to achieve goals will require new tools of the trade.

Response

EPA agrees that all State and federal agencies who oversee and have authority over the lands and water bodies that discharge into the Chesapeake Bay are important to the successful implementation of Chesapeake Bay TMDL. According to 40 CFR 122.44(d)(1)(vii)(B), the effluent limitations for an NPDES permit must be consistent with the assumptions and requirements of any available WLA. EPA expects that all NPDES permitting authorities will review the information provided by this TMDL and determine whether the effluent limit is appropriately expressed and is consistent with the TMDL. With that said, EPA also recognizes that permitting schedules and time frames may be an impediment to quickly achieving implementation.

EPA will measure each jurisdictions' progress toward reaching the TMDL's ultimate nutrient and sediment reduction goals against 2-year milestones by which the jurisdictions are expected to, with contingencies, identify and commit to implement specific pollutant-reduction controls and actions in each of their successive 2-year milestone periods. Expediting permit processes may be an important tool toward meeting the 2 year milestones.

Comment ID 0441.1.001.001

Author Name: Pavlicek Jan

Organization: Kemira Water Solutions, Inc.

We, would like to take this opportunity to encourage EPA and the individual states affected by the Chesapeake Bay TMDL to amend the planned activity item in the Maryland Watershed Implementation Plan: Summary Table of Actions described as Poultry Litter Treatment. We respectfully request that Kemira Klasp™ litter amendment be accepted and included as BMP for mitigating ammonia and phosphorus from Poultry farms.

Kemira Klasp™ has been shown to be effective at reducing ammonia and binding phosphorous in University trials and numerous commercial applications.[FN1-3]. Attesting to this, is the fact that USDA/NRCS is currently providing cost

share assistance for this litter amendment via Natural Resources Conservation Service Conservation Practice Standard Amendments for treatment of agricultural waste Code 591. Also supporting this is the well established science that the iron III molecule effectively sequesters phosphorous as phosphate and is the preferred management practice throughout most the pollution management industry; iron III being the basis of the KLASP phosphate treatment chemistry.

By not endorsing KLASP the industry would be left with only one commercially available litter amendment (alum) to receive credit as a BMP for improving the Chesapeake Bay, EPA and would thereby also create an unfair competitive environment for this somewhat new but already well established product.

Additionally, a good number of poultry producers will be at a disadvantage as many will choose to continue using Klasp due its effectiveness on their farm compared to other BMP's.

In closing we strongly encourage you to include Klasp as an accepted BMP for mitigating ammonia and phosphorous on Chesapeake Bay poultry firms. Should you need more supporting data, please do not hesitate to contact us.

[FN 1] iNeal, Shockley, De-Chem LLC Unpublished data P concentrations using Klasp on Delmarva Poultry farms

[FN 2] Ritz, C.W., L.A. Harper, B.D. Fairchild, V. Johnson, J. Pavlicek. Ferric sulfate as a litter amendment in broiler houses. National Poultry Waste Management Symposium, Des Moines, IA, October 21-22, 2008.

[FN 3] Moore, P. A., Jr., and D. M. Miller. 1994. Decreasing phosphorus solubility in poultry litter with aluminum, calcium, and iron amendments. J. Environ. Qual. 23: 325-330.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0442.1.001.012

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

9. EPA and States Need to Make Sure Growth Policies Support Infill Development

The population of the COG region is forecast to increase 20 percent, or by about 1 million people, between 2010 and 2030. Most of this growth will occur as infill development in existing urban areas already served by municipal wastewater treatment. As the Maryland WIP notes in Section 3-1, having the growth occur in service areas for existing wastewater treatment plants produces much lower loads to offset than would allowing the growth to occur outside of sewered areas. As the Maryland WIP also notes, the increased wastewater plant load from new growth to 2030 can be accommodated within proposed plant allocations determined by 2010 design flows and various targets for enhanced nutrient removal implementation. It is also imperative that this growth capacity not be compromised by backstopping and other actions by EPA or the states that would reduce the current proposed WWTP allocations in response to the failure of other sectors to achieve their assigned reductions (ref. Section 10.1 Future Growth, & Section 7.2.4 Federal

EPA Actions, p. 7-11).

Recommendation #9: Provide Incentives to Encourage Growth in Existing Urban Areas

In concept, we support the growth and offset strategy that Maryland has outlined in its WIP (Section 3.2), which proposes to provide lower disincentives for growth in areas that are already more highly developed than in other areas. We urge Virginia to develop a system of incentives/disincentives that also seeks to direct growth to existing urban areas.

10. EPA and States Must Ensure that Efforts to Meet Bay Water Quality Standards are Consistent with Meeting Other Environmental Objectives

EPA and the states must recognize that at the local level addressing water quality requirements is only one of a number of equally compelling mandates and that, within the environmental arena, there are potential conflicts among these mandates. This is especially true when entities must meet mandates derived from EPA's own regulations (e.g., Clean Water Act, Safe Drinking Water Act, and Clean Air Act) and programs (e.g., Climate Change initiatives).

Example:

Many wastewater treatment technologies intended to implement ENR-level nutrient removal are by their very nature energy and chemical intensive processes - and hence tend to increase the net quantity of greenhouse gases. There are already many efforts underway by COG's local governments and wastewater utilities to find ways to minimize those energy needs and increase energy reuse; but it will take some time to evaluate and to implement such practices. These efforts are critical to the region not only for enhancing nutrient reduction costs/impacts, but also to help reduce the electricity generation needs in the region, to support regional efforts to comply with Clean Air Act regulations and reduce greenhouse gas emissions. (Note that COG's member governments also have made a voluntary commitment to reduce greenhouse gas emissions 20 percent below 2005 levels by 2025.)

Example:

The UOSA plant in Virginia serves multiple and simultaneous purposes by helping the region address water quality in the Occoquan Reservoir as well as downstream waters, and to help maintain water quality conditions within the Reservoir to protect and enhance its use as a drinking water source. Requiring higher levels of nitrogen reductions from the UOSA plant without accounting for both environmental and human health needs would pitch one environmental goal against another and risk failing to meet both objectives in a balanced manner.

Recommendation #10: Articulate Policies to Reconcile Competing Environmental Mandates

Consistent with the stated objectives of adaptive management and incorporating the best available science, EPA and the states should have clear policies and mechanisms in the TMDLs and the WIPs to allow for the reconciliation of such competing environmental mandates, and to avoid a one-size-fits-all approach when it is clearly not appropriate (ref. Section 10. TMDL Implementation & Adaptive Management, 10.5 Factoring in Effects from Continued Climate Change).

Response

EPA agrees that future growth is an essential component that must be considered by jurisdictions as part of their WIPs. EPA has included discussion of this issue in the TMDL. See Section 10 and Appendix S for more details. EPA reviewed the final WIPs for

each jurisdiction against EPA's expectations including those for growth, trading and offsets as outlined in its November 4, 2009, WIP expectations letter sent to each jurisdiction as well as the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. The results of the final WIP evaluations can be found in Section 8 of the final TMDL. Because the final WIPs are improved from the drafts, EPA has removed or reduced the backstop allocations for wastewater treatment plants except in New York. Regarding the commenter's proposals for policies for future growth and to reconcile competing environmental mandates, many are outside the scope of this TMDL. EPA will continue to provide oversight over implementation of the TMDL including these issues. .

Comment ID 0443.1.001.001

Author Name: Moore Shannon

Organization: Frederick County Government

Frederick County Government supports the goals to protect and restore the Chesapeake Bay and has contributed significant and sustained efforts voluntarily to this end. The County has concerns about the mechanisms proposed by the Maryland Department of the Environment in the Phase I Watershed Implementation Plan and provides the following comments:

1. The WIP incorrectly states on page 2-14 that Frederick County passed legislation to implement a stormwater utility fee.
2. Goals for Phosphorus reduction for the Urban Sector exceed the goals for Nitrogen reduction, yet most of the' goals in the WIP are stated in terms of Nitrogen. This makes quantifying the effort to meet these goals impossible.
3. Table C on page ES-12 indicates that the goals for the TMDL would be met for Urban Stormwater in 40 years, but that 3-4 times the current capacity would be needed to meet the goals by 2020. In reality, the capacity would have to be significantly increased beyond 3-4 times current levels due to increasing marginal costs and efforts to retrofit. The most cost effective restoration efforts occur first. These increases pose a financial hardship to Frederick County, and there are inadequate mechanisms available from outside sources to significantly help fund such an enormous effort.
4. Significant increases to the requirement to retrofit untreated urban impervious areas are considered to "close the gap" between the predicted and needed reductions. The permit currently requires an additional 10% every five years. Tripling or quadrupling this effort, as mentioned in the table on page ES- I 5, poses the following issues:
 - a. MDE held a meeting recently with Phase I MS4 municipalities to figure out how to credit retrofit projects, as there is currently no standard for water quality for retrofitting untreated urban impervious areas. Discussed were several options, including retrofitting WQ to the Maximum Extent Practicable, retrofitting to the 1" storm, retrofitting to the MD2007 stormwater regulations, and retrofitting to forested conditions; in an example where 0.6" of rainfall is the maximum extent practical for water quality due to site constraints, is the project treating a full acre of retrofit due to MEP requirements, 60% of an acre using the 1" requirement, or some other proportion of an acre? If we do not count the entire acre as treated, we will run out of acres to treat before we have hit 100% retrofit. If we do count the entire acre as

treated, then we may reach 100% retrofit before we have restored designated uses. This highlights the fact that the retrofit requirement does not tie directly to the nutrient reductions required to correct the designated use impairments; this requirement should be eliminated, and projects tracked according to their reductions of impairing substances using monitoring data and/or numbers accepted by the Chesapeake Bay TMDL model.

b. The retrofit requirement disregards the watershed assessments that are required by NPDES MS4 Phase I permits that actually look at the sources of designated use impairments and develop watershed restoration projects to correct the impairments; thus, there is no clear connection between the stormwater management facility retrofit requirement and the designated use impairment. The stormwater manager is encouraged to retrofit in areas with no impairment, and may under-restore areas with actual impairments in trying to meet this requirement. Again, it would make more sense to be held directly to the MS4 allocations in the TMDL than to have a secondary requirement that does not directly tie into the designated use impairment.

c. There are significant discrepancies between State, Bay Program and local estimates of urban impervious cover as noted on page 4-2. Should we be held to impervious area reductions, we should be able to use our own estimates, as they are based on the most accurate data available.

d. Stormwater retrofits are prohibitively expensive per acre, and the increased requirements would pose a significant hardship to Frederick County.

e. Other types of water quality restoration that would be more cost-effective than stormwater retrofitting are not permitted as substitutions/trades, though there are trading programs established between WWTPs and agriculture, for example. Frederick County has proposed a trading program for years but this has not been met with enthusiasm at MDE. We should also be able to trade with agriculture or with other BMPs that might be identified in the future. For example, if we were to pay for additional cover crops in the cover crop program, we would get credit for the reductions from the amount of the BMP we would pay for. Or we could look to get a partial restoration credit for land conservation activities (using a but-for option in a trading scenario) and track them through an established service like BayBank. Land conservation helps to protect and restore existing tracts of important green infrastructure, particularly in areas with local impairments.

f. Stormwater retrofitting is not the only water quality restoration that can occur in urban areas; for example, Frederick County is converting a significant area of the landscape to trees. This is a very effective mechanism for reductions from urban pollutants and should count under NPDES MS4 permit goals and not just under "natural filter" requirements, lest these programs be forced to compete with one another.

5. According to pages 2-10 and 5-23, "A key goal of the Bay restoration strategy will be to install stormwater controls (retrofits) and water quality improvement projects on land that was developed prior to the implementation of Maryland's Stormwater Management Law in 1985, and enhancing water quality for early BMPs implemented between 1985 and 2002."

There are several issues with this:

a. There is no recognition of the water quality benefit of practices installed prior to 1985, such as open section roads, and there is an unclear recognition of benefits from 1985-2002.

b. This requirement adds additional retrofit requirements to MS4 permits in addition to the 30-40% retrofit requirement discussed as a gap closure measure, as it effectively increases the number of untreated urban acres.

c. This requirement disregards the watershed assessments that are required by NPDES MS4 permits that actually look at the sources of designated use impairments and develop watershed restoration projects to correct the impairments; thus, there is no clear connection between the stormwater management facility retrofit requirement and the designated use impairment. The stormwater manager is encouraged to retrofit in areas with no impairment, and may under-restore areas with actual impairments in trying to meet this requirement. This encourages jurisdictions to meet the letter but not the spirit of the regulations.

6. If the strategies fall short of the 2017 goal, MDE proposes to "increase MS4 permit requirement for MD's largest counties and the State Highways Administration to require installation of stormwater controls on 40% or 50% of their impervious surface by 2017 in their jurisdictions that do not already have stormwater controls. The 2020 goal would increase to 60% or 70%, respectively, depending on the option selected

- Establish a Chesapeake Bay Watershed Restoration requirement in the NPDES municipal stormwater permits [note this is already written into draft NPDES MS4 permit];
- Require an implementation plan and schedule;
- Monitor and report compliance; and
- Continue to provide technical assistance, training, and outreach." (p. 5-23).

Issues:

a. It would be unrealistic to propose retrofitting 20% of a county's untreated urban impervious area in a three year period when Frederick County currently struggles to meet a 10% impervious area reduction in a five-year period, from both a financial and organizational perspective.

b. The bulleted goals are proposed in the current draft NPDES MS4 Phase I permits, which appears to be jumping ahead of schedule from the Phase I WIP.

7. 5.2.3 Natural Filters: As discussed above, when in urban areas, these types of projects should count towards the NPDES MS4 Phase I permit goals for restoration as a strategy for watershed restoration to restore designated use impairments. Furthermore, these types of projects could be eligible for trades with urban requirements when placed on non-urban lands that have met their minimum reductions for the Chesapeake Bay TMDL. DNR could administer such a program under the guise of trading ecosystem services.

8. Note that NPDES MS4 permits are listed in the document as both point and nonpoint source, and this should be made consistent. This is of particular importance to 6.1 Point Source: Tracking and Reporting because it is unclear if NPDES MS4 permits will be required to complete Discharge Monitoring Reports (DMR) and Monthly Operating Reports (MORs).

9. According to the WIP, "All stormwater retrofits and urban water quality improvement projects are being reported to Maryland BayStat. The data appear on spreadsheets that specify permit requirements, compliance status, nitrogen reduction benefits, and operating and capital expenditures toward meeting the 2-year milestones. BayStat reviews retrofit implementation and pollutant loads and considers proposed contingency actions. This information has been provided via electronic data tables or hard copies annually to MDE Stormwater program coordinators." Frederick County is not aware of this and to its knowledge, this is not the case. Frederick County is not required to report on N reductions so it is unclear how BayStat would be getting this information.

10. According to the WIP, "MDE's Science Services Administration Program ensures that the reported practices fit into EPA/Chesapeake Bay Program Model. Maryland's stormwater management practices will follow the Maryland Design Manual and includes Stormwater Ponds, Stormwater Infiltration, Stormwater Filtration, Open Channel Practices, Environmental Site Design (ESD) practices, Alternative Surfaces, etc." This list needs to be significantly expanded to take credit for all of the types of projects NPDES MS4 Phase I jurisdictions are counting towards urban retrofit requirement.

11. Frederick County would be negatively affected by Forest Conservation Act Enforcement recommendations, particularly the no net loss of forest requirements and the elimination of the fee in lieu program. The fee in lieu program is being used to target larger tracts of ecologically significant forest and areas with designated use impairments; this is not possible without the program. The county has also found that these fees often provide a greater opportunity for a net increase in forest acreage than the minimum requirement.

12. 5.2.3 Natural Filters "University of Maryland Extension at the Wye Research and Education Center will begin a project similar to Baltimore County's Rural Residential Stewardship Initiative for the Maryland Monocacy watershed expressly for water quality impacts. This project is based on the peer-to-peer education model and will feature a weekend workshop. Landowners will learn both afforestation and outreach techniques, and the workshop participants will be tasked with afforesting their own land and reaching out to others to do the same. The Natural Resource, Agriculture, and Engineering Service published a manual titled, "The Woods in Your Backyard" and this information will play an integral role in the work in the Monocacy." Frederick County is unfamiliar with this project at the Wye Center and sent an email to Jonathan Kays who runs the Woods in Your Backyard program; he is also not aware of this program. Frederick County submitted a grant with the Woods in Your Backyard program to the National Fish and Wildlife Foundation but it was not accepted.

13. The County is uncertain how we would implement "offsets" for new development without regulatory authority to require any action beyond current Stormwater Management and Forest Resource Ordinance regulations. Which types of agencies would be involved (Planning, Soil Conservation District, Permitting and Development Review, Public Works, Health department, other)? Would the offset requirement go into land use planning in some specific manner?

14. In general, the WIP indicates that the State will rely on local governments to participate in and support accounting of nutrient loads associated with growth. Additional coordination is not currently in place to track or report on these loads. Tools and support would be required to meet this objective.

15. Wetland banking is listed as a potential offset tool. Will the State continue to administer that, or will they expect the counties to? How would that work within an offset trading program?

16. For Wastewater Treatment Plants, the County should not have any difficulty complying with the new TMDL and WIP at this time. However, if there is a need to upgrade and increase the capacity of a wastewater treatment plant should arise, there may be total nitrogen and total phosphorus loading caps that would need to be met that may require BNR or ENR treatment at these WWTPs.

17. The Bay Model has numerous areas where it is known to be inadequate or inaccurate, particularly in the area of judging relative sediment contributions from land versus instream erosion, yet counties are being held to precise

standards for pollutant loading estimates. There is no flexibility for counties in the proposed allocations arising from this and other uncertainties. We echo the Maryland Association of Counties' (MACo's) concern that "The Chesapeake Bay Phase 5 Watershed Model continues to show improvements and refinements over previous versions, but ultimately the Model is still limited, being subject to inaccuracies and "best guess" estimates. Given that the Model is still imperfect but that State and county governments are being asked to undertake precise nutrient reduction tracking the Environmental Protection Agency (EPA) must commit to further refining the Model AND show some flexibility in allowing States and counties to present data and that may not be incorporated or accounted for by the Model. In short, the Model should not be a be-all and end-all for data measurement and analysis."

Frederick County also echoes the concerns of the Maryland Association of Counties on the following points:

- Local Flexibility to Meet the Goals
- Counties Need Many Quantifiable Nutrient Reduction Tools
- Bay Model Should Not Be Sole Determinant for Progress
- Counties Need Fiscal Support
- Counties Need Technical Support
- Use of Growth Offsets
- Nutrient Trading Must Be Clarified
- Separate the TMDL Targets From NPDES MS4 Permits Until Phase II WIP Completed
- Do Not Eliminate Forest Conservation Act Fee-In-Lieu Program

We appreciate the opportunity to address our concerns with the Draft Phase I Watershed Implementation Plan and express our commitment to the restoration of the Chesapeake Bay and its tributaries.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0443.2.001.004

Author Name: Moore Shannon

Organization: Frederick County Government

The County provides the following comments on the Executive Summary of the TMDL: p.6: "In their draft Phase I WIPs, the jurisdictions were expected to subdivide the Bay TMDL allocations among pollutant sources; evaluate their current legal, regulatory, programmatic and financial tools available to implement the allocations; identify and rectify potential shortfalls in attaining the allocations; describe mechanisms to track and report implementation activities; provide alternative approaches; and outline a schedule for implementation."

- MDE did not consult with those required to implement the WIPs during its construction; Frederick County is not able to guarantee at this time that we can meet the WIP, in fact, the opposite is expected due to resource constraints.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0447.1.001.001

Author Name: Gaag Halle

Organization: Baltimore Water Alliance

Overall, we feel the Phase I Maryland Implementation Plan (WIP) was a solid first draft of recommendations and strategies, but look forward to significantly more detail and specifics about how target goals will be met in the Phase II process. Given that a strong and enforceable WIP's are absolutely essential to the implementation of the Bay wide TMDL, we are hopeful that this increased level of detail will provide an accurate and geographically specific roadmap that will help our local waterways in the Baltimore Metropolitan become cleaner and healthier on their way to meet the Chesapeake Bay.

It should be noted that we support and reference the full suite of comments submitted by the Center for Progressive Reform (CPR) [Comment #0185] and the Choose Clean Water Coalition [Comment #0480] and those of the Waterkeepers (WK) of which the Baltimore Harbor Waterkeeper is a program of the Baltimore Water Alliance.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0447.1.001.003

Author Name: Gaag Halle

Organization: Baltimore Water Alliance

As CPR explains, the WIP mainly inventories the state's existing pollutant control programs as "options" unaccompanied by programmatic or funding commitments or deadlines for implementation. The phase II WIP should detail the entity responsible and timeline, for specific practices and how much it is going to cost, and if possible note the funding source. Without specific, enforceable, time-sensitive implementation detail in the difficult areas, it is likely there will be less action and accountability. In this regard, we would like to highlight a comment in CPR's Maryland contingencies section: it reads: "In the final WIP, Maryland should ensure that its contingencies are clearly identified and are coordinated with specific failures, have timely implementation deadlines, are effective, and have legal authority to require implementation." This concept should be reflected in virtually every paragraph of the WIP.

As noted by others, the draft WIP was written with a different goal in mind: it states that it was "expressly written to solicit public comments on a wide range of pollution control strategy options.... [T]he options chosen to implement the

needed reductions will be selected with the benefit of the public comments...." Examination reveals that some of the options include an associated nutrient reduction amount, while others do not. Similar "options" have been proposed for the Bay clean-up in Tributary plans, and most everything in Maryland's WIP has been seen over and over again. In these regards, the WIP is not much of an improvement over the earlier Tributary Strategies which have failed to bring about meaningful water quality improvements.

We agree with CPR that opportunities for public comment are "valuable, but ultimately Maryland must make the tough decisions that protect the environment and lead to a restored Bay for present and future generations." Although the laundry list of options has some good things in it, it should not be up to the public to cherry pick the winning combination of activities from a long list. Maryland has erred "by leaving the particulars open to debate," and as a consequence "is likely to receive less focused and less helpful comments." Maryland has some of the best scientists, engineers, and watershed specialists in both the private and public sectors and we believe a more detailed suite of restoration/retro-fit options using the best available technologies and thinking can be created with the necessary detail on costs, timelines etc.

Additionally, as CPR points out, the "WIP does not explicitly commit to any of those options." Unfortunately, the options are not accompanied by "funding commitments or deadlines for implementation" which is exactly why past efforts have not yielded sufficient results. What is more, these "options" are proposed in a context in which Maryland has not committed sufficient resources to meet its own current regulatory requirements and does not specifically state that a "gap analysis" of key administrative or institutional milestones be completed by state and local jurisdictions to address known gaps in personnel for inspection and monitoring. Without sufficient resources and personnel, and a new 'mind set' around enforcement of regulatory requirements, no "options" will be sufficient.

We also want to highlight comments by the Waterkeeper "Inexplicably, the Maryland WIP omits vital information it has previously disclosed as part of its laudable annual enforcement and compliance report. For example, Maryland's draft WIP does not include the permitting and enforcement information already contained in its annual report to establish its baseline capacity. The final Phase I WIP should mine information from Maryland's annual report to resolve this problem.'

We are pleased that the "draft WIP meets the nitrogen and phosphorus allocations and reduces the sediment pollution to a level that is 26 percent below the target allocation." [FN 1] On the other hand, Baltimore Water Alliance has a particular concern about the way Maryland's Draft WIP deals with the issue of sediments. Section 5.1 states:

"The Chesapeake Bay TMDL requires both nutrient and sediment reductions. To begin developing options to reduce sediment loads the sediment reduction values from existing milestone practices were calculated. Maryland received draft sediment targets on August 13, 2010. Maryland is operating with the expectation, supported by EPA, that because of the close relationship between sediment and phosphorus loads, initial nonpoint sources strategies to achieve phosphorus goals will give a reasonable indication of whether the sediment goals are likely to be achieved. Consequently, limited attention is given to sediments in this draft of the Plan."

The assumption that sediments will be automatically addressed by dealing with non-point phosphorus loads is extremely environmentally significant. Yet the WIP does not describe a scientific basis for this assumption. The EPA should not accept this high impact assumption without an unimpeachable scientific justification.

NPDES Permitting/Enforcement of NPDES Permits

CPR points out that in the draft WIP "Maryland included some information about its permitting program . . . , but failed to disclose information about existing facilities without permits, if any, or existing facilities with expired or administratively continued permits. . . . Maryland also failed to establish deadlines, timelines, or qualitative goals for updating and reissuing expired and administratively continued NPDES permits."

The Baltimore Water Alliance is concerned that there has been prolonged and chronic failure to enforce lack of compliance with permitting goals, and needs assurances in the WIP that new, more stringent permits will be monitored and compliance issues enforced. As the Waterkeeper comments state: "Maryland has failed to issue permits; failed to reissue permits in a timely manner; failed to issue permits that conform with federal requirements including the requirement to have meaningful links to existing TMDLs; failed to inspect facilities as required by law; failed to fulfill its monitoring responsibilities; failed to effectively enforce the program; failed to seek adequate penalties; and failed to comply with public participation requirements. [FN 2]"

Thus, we endorse CPR's analysis and recommendation that "Maryland's final WIP should explain how it intends to improve its enforcement program and address these issues as they relate to the Bay."

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

We agree with CPR that "the final WIP should include information regarding participation and effectiveness of [best management practices funded by the MACS program.]" In addition we also concur that the final Phase I WIP must provide for dedicated funding for monitoring and verification.

Contingencies

CPR points out that overall "the draft WIP fails to discuss what contingencies Maryland will implement for slow or incomplete implementation." We agree with CPR that the final Maryland WIP should have timely implementation deadlines, and contain specific plans to implement clearly identified contingencies in the event of delayed adoption of new or revised legislation or regulations, inadequate compliance or participation rates, or adverse changes in land use or development rates. [FN 3] We believe it is essential that the WIP include detailed and strict contingencies for any source that fails to meet the TMDL limits and two-year milestones.

Stormwater

CPR correctly observed that the draft WIP "does not disclose the estimated funding and personnel gap, if any, and does not explain how this gap will be filled to ensure that the state has and maintains an effective stormwater program." This is especially true in Phase 1 MS4 jurisdictions. Maryland says its WIP supports the "reasonable assurance of implementation for Maryland's part of the TMDL." [FN 4] "This includes a demonstration that achieving load reductions required by the TMDL can reasonable be met, that is, current or anticipated resources and commitments are expected to be sufficient." [FN 5] However, the MD WIP says that locally administered programs will be analyzed in Phase II. [FN 6] If the Phase I WIP fails to analyze these Phase I MS4 jurisdictions and their capacity to achieve reductions, how can they provide any assurance that Maryland's implementation will be successful?

Baltimore city is one of the largest and oldest MS4 jurisdictions in the state of Maryland. The city was primarily built out before any stormwater management was in place, and has consistently failed to meet its current permit obligations. Without significant additional funding, it is virtually impossible they will be able to meet these enhanced mandates:

- 20% reduction in Nitrogen
- 34% reduction in Phosphorus
- 37% reduction in Total Suspended Solids [FN 7]

Baltimore City is attempting to legislate a local stormwater utility. However, a state-wide stormwater utility -- with rates determined and collected by the local jurisdictions -- would ensure that there would be a protected, reliable source of funds for costly retro-fitting, new green infrastructure, and neighborhood scaled best management practices. Moreover, a statewide mandate would ensure that all jurisdictions begin to tackle the specific run-off issue that is contributing the highest loads within their boundaries, and would ensure this burden is being felt by all citizens, not just in places where the political will is there to create local fees. We endorse Waterkeeper's assertion that MD should commit to passing this legislation in the phase I WIP.

[FN 1] U.S. E.P.A., "Summary: EPA Evaluation of Maryland Draft Watershed Implementation Plan" (Sept. 22, 2010).

[FN 2] 40 C.F.R. § 123.63. If the

[FN 3] Expectations Letter, supra note Error! Bookmark not defined.

[FN 4] MD WIP Exec. Summary, ES-1.

[FN 5] Id.

[FN 6] Id. at p. 8.

[FN 7] MD WIP Executive Summary pp 6-7.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0451-cp.001.001

Author Name: Comment Anonymous

Organization:

AS a citizen living in Charles County for over half my life, I am concerned that there are better choices that could be made in protecting the Chesapeake Bay. You already know the importance of the Mattawoman Watershed. It would be way cheaper to determine how much and where protection is needed in this watershed, but the property and watch as nature works. Simplistic? Sometimes simple works, especially when mother nature is involved.

The MWS Society also points out three areas to focus on. I agree with this: Retrofitting untreated impervious surface, forest preservation, and Smart Growth. But for heavens sake, just buy the most sensitive stream valleys, wetlands, buffer zones...., focus construction away from the sensitive areas (build up Waldorf) and we will save millions.....

Response

See response to Comment No. 0044.1.001.004

Comment ID 0486-cp.001.001

Author Name: Rathlev G.

Organization:

November 8, 2010

Mr. Tom Thorton
TMDL Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Suite 540
Baltimore, Maryland 21730

Re: Docket Number EPA-R03-OW-2010-0736

Dear Mr. Thorton;

I am a resident of Annapolis Maryland, living within the defined "Critical Area" and I am providing the comments below pursuant to the statement contained in the EPA website that "Comments are being accepted on the Draft Bay TMDL until November 8, 2010". I am aware that as part of the Bay TMDL process, the states within the Chesapeake Bay watershed must submit plans for reaching the pollution reduction targets established by the EPA's adopted TMDL.

In light of this dual requirement I have included my comments on the proposed Watershed Improvement Plan as submitted by Maryland in order to meet the EPA's requirements.

My comments are as follows;

1. Overall goal. I believe that the overall goal of establishing a "Total Maximum Daily Load" for the Bay is necessary and desirable as a public policy. I do not believe that limiting the TMDL levels to the three stated measurable criteria, (nitrogen, phosphorous and sediment) is sufficient. I recognize that these three are critical and accepted barometers of the Bay's health with some degree of reporting history however; the health of aquatic life in the bay is threatened by an ever growing influx of chemicals that are as potentially damaging as the three that the TMDL seeks to limit. I am referring to herbicides, pesticides, antibiotics and hormones being used throughout the watershed in the production of crops and livestock. If the proposed TMDL limits are met I believe that the health of all species in the Bay will still be at serious risk from these chemicals as will anyone that consumes them. I would encourage the EPA to begin a process by which these chemicals are prevented from entering the Bay's waters.

2. Timing. I applaud the EPA for establishing deadlines in a process that in the past has resulted in very little real progress, however given the complexity of what the EPA is attempting to achieve I cannot believe that the short time frame between the end of the "public comment" period (November 8, 2010) and the "final versions (of the states Phase 1 WIP) due on November 29, 2010" , is adequate to allow for meaningful review and study of any such comments

received, much less to act upon in revising the plans. I would strongly suggest extending the time allowed to the states to receive, review, and react to any comment received prior to the final TMDL being adopted, and their submission of "final versions" of their Phase 1 WIP.

3. Public Participation and Comment. The Draft WIP prepared by Maryland states that "The table of strategies presented.....will be selected with the benefit of the public comments received." I do not think that the format was sufficiently developed so that the "public" could make an informed judgment about what was being presented, and by definition provide comment that would have meaning for those individuals or entities that will adopt the "strategies" to be implemented under the Watershed Implementation Plans. There is no cost data whatsoever to be found in either document that would give the public some idea of how much each form of "strategy" costs per pound of targeted improvement. There is very little, if any, assessment of the marginal efficiency of investment in any of the proposed "strategies". How is the public to comment on the approaches if no clear presentation is provided on (a) what each approach might cost, and (b) what the rate of return (pounds removed) on the "public's" dollar invested might be. I would like to consider myself an informed participant and recognize that the documents were prepared for consumption by the general public, but I found them bewildering at best, and purposely obfuscatory at worst.

4. Assumptions. Chapter 3 of Maryland's Draft Phase 1 WIP contains the following assumption, "New development on septic tanks is assumed to be in the form of 2 acre lots that contribute non-point source loads of 3.15lbs TN per acre per year, served by septic systems discharging 12.16 pounds of TN per year." In W.G. Reay's comprehensive study of the impact of septic systems he determined the amount of Nitrogen loading to be 16.75 pounds per year. The amount was not based on lots as large as 2 acres, and they were in close proximity to tidal waters with a relatively shallow groundwater influence. The estimate was based on "conventional" septic system design and I can only assume the same for the WIP statement as it is not defined. In the January 2009 Bay Restoration Fund Advisory Committee Annual Status Report it says that 450 enhanced nutrient removal septic systems were installed utilizing Bay Restoration Grant Funding, and that this eliminated 6,849 pounds of nitrogen from the Bay watershed. On a per unit basis that would be 15.2lbs per dwelling, or more than the total amount estimated by the Maryland Department of Planning and very close to the same thing when adjusting the W.G. Reay results for larger lots and less proximity to high water tables. The figures provided in the January 2010 Annual Status report reflects the same per unit average reduction. Is it possible for these systems to be removing 100% of the estimated nitrogen load? Is the assumption in the WIP correct?

5. Assumptions. The January 2009 and 2010 Annual Status report noted above state that there are over 50,000 septic systems within the Maryland Chesapeake Bay Critical Area. The reports also state that annual replacements and/or upgrades are approximately 500 units a year with the rate of replacement matching funding provided by the Bay Restoration Grant (BRG) Fund. The "Summary Table of Actions" component of the draft WIP acknowledges this level of effort by stating that 535 systems are to be replaced using BRG funding and that 90 additional systems will be upgraded through the use of "surplus" funds after all priority applications have been addressed. The Phase 1 WIP calls for a 38% reduction in Nitrogen loads from septic systems. MDE estimates that there are 420,000 such systems in the state and 51,000 of them are located within the defined Critical Area. Would it be reasonable to say that if 38% of the OSD's in the state reached a total annual nitrogen load of less than 1lb per year the goal would be met? If so that would equate to nearly 160,000 systems, or more than three times the total number of OSD's in the Critical Area alone. The state does not have the money to embark on such a plan and the WIP really does not offer any alternative. Is a 38% reduction in Nitrogen Loading from septic systems a realistic assumption?

6. Assumptions. The EPA Draft TMDL and the Maryland Draft Phase 1 WIP both state that equitable solutions must be

reached based on stakeholder input. The Bay Restoration Grant Fund receives its money via a \$30 per wastewater system user or septic system owner. All funds (net of administrative expenses) collected from wastewater system users are applied to the upgrade of wastewater treatment plants. Septic system owners only receive 60% of the benefit of their contribution as the remaining 40% is diverted to subsidies for agriculture. I believe that 100% of the tax imposed on homeowners should be utilized to improve all OSD systems within the Critical Area prior to diverting any such funds for the benefit of private agricultural business interests.

7. Assumptions. The Maryland Draft WIP calls for reductions in pollutant loading from Urban regulated and Urban non-regulated areas. It is my understanding that the difference is between point and non-point source i.e. permitted and non-permitted sources of runoff. I believe that this is not a sufficiently defined or refined distinction. It lumps urban areas with combined sanitary and storm sewer systems which in many cases are nearly 100% impervious with little or no forms of storm water management with properties or buildings that have been constructed since the introduction of storm water regulations in the 1980's. I believe that at least one additional category of measurement needs to be added in order to correctly assess the impact of new projects.

8. Assumptions. The Maryland Draft WIP states that significant reductions in nitrogen (33%) and Phosphorous (38%) pollution were achieved while accommodating a 29% increase in population. There is no specific data in the draft WIP that indicates how this was achieved however a report prepared by Wetland Studies and Solutions Inc. , (WSSI) utilizing the Chesapeake Bay Watershed Model (5.3) states that "Nearly half (48.4%) of the agricultural TN load decrease from 1985 to 2009 is the result of land conversion of agricultural land to urban land. Approximately 60% of the TP and TSS load reductions result from land conversion rather than BMPs". I compared this data with information available from the US Census Bureau and the Maryland Department of Agriculture. I chose three western shore counties that have experienced significant population growth, (Anne Arundel, Montgomery and Prince George). Since 1997 these three Counties have seen an increase in population of nearly 200,000 while farm acreage has dropped from 164,963 acres to 133,862 a decline of nearly 18%. On the Eastern Shore Counties of Caroline, Dorchester and Talbot population has increased by approximately 6,500 while agricultural acreage has increased from 346,132 acres to 373,467 acres. A recent report released by the US Geological Survey states that water quality in the Choptank River (bounded by the above eastern shore counties) has worsened. Such data would seem to provide credibility to the WSSI report conclusion. If this is indeed the case, the underlying assumption on how water quality improvements have been achieved to date needs to be re-examined in light of this data. I would recommend that a much greater emphasis needs to be devoted to analyzing how agricultural lands can truly reduce the impact of their activities on the Bay Watershed and a greater percentage of the improvement in water quality achievement needs to be assigned to the agricultural sector.

9. Assumptions. The Maryland Phase 1 Draft WIP contains several references to a nutrient "Cap and Trade" program, (Section 3, Accounting for Growth). The process, means, pricing, and management of such a program are so vaguely stated that no reasonable conclusion can be reached regarding the validity of such a proposal. I would recommend deleting this recommendation in its entirety unless specific program terms are added so that its implications can clearly be understood.

10. Data collection. It is my understanding that many of the assumptions contained in the EPA's TMDL and the Maryland WIP are based on a computer model. Given the size of the watershed and the complexity of the analysis I cannot imagine any other means of attempting to create an overall plan for improving the Bay. I would strongly recommend that the number of data collection points be increased to validate the assumptions contained in the

computer model.

11. Realistic Goal Setting. The Maryland Phase 1 Draft WIP sets a goal of achieving 70% of the target reduction for regulated urban pollutant loads by 2017. This is exclusive of discharges from waste water treatment plants. The chart provided on page 6 of the Executive Summary indicates that a 1,000,000lb reduction in nitrogen pollution from regulated urban runoff is required for Maryland by 2020 and that 70% of that goal will be achieved by 2017. The most significant proposal for achieving that goal contained in the "Summary Table of Actions" is to require SHA and Counties to install storm water management controls at 30%, 40% or 50% of existing impervious surfaces without controls. I do not believe that it will be possible to identify and generate the necessary funding for any of these levels of retrofit much less design and install them by 2017. I think a more realistic analysis of actual pollutant sources and cost effective controls is required to meet the 2020 reduction targets much less those set for 2017.

As a resident who cherishes those days that I am fortunate enough to get out on the water, I applaud all those who truly seek to make it better, and I hope that you will accept the above in the hope that we can all achieve that goal.

Sincerely,

George Rathlev
1912 White Heron Road
Annapolis, Maryland 21409

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0495.1.001.002

Author Name: Long Jim

Organization: Mattawoman Watershed Society

Mattawoman Creek as a test case for assessing TMDL enforcement

As has often been noted, the Bay TMDL represents the largest and most complex attempt ever to implement the TMDL tool. This necessarily requires operating at a relatively coarse-grained spatial scale for the foreseeable future. Under such circumstances, an understanding the effectiveness of various enforcement strategies may be accelerated by examining these strategies at a smaller spatial scale, where more detailed modeling is feasible, and where a simpler matrix of land uses and pollution sources tests strategies with greater specificity. We believe that Mattawoman provides a compelling test case at a manageable spatial scale for examining the effectiveness of new approaches to enforcement, especially in regard to nonpoint sources, urban stormwater, and forest conservation, for the following reasons:

(i) Mattawoman represents a highly visible and charismatic Bay resource because of its outstanding qualities. For

example, it has for many years been an anadromous-fish spawning and nursery ground among the best, if not the best, in the Bay with a healthy and robust trophic structure in its freshwater-tidal fish community [Carmichael, 1992; Uphoff, 2005]. It also supports a vibrant recreational largemouth bass fishery [Groves, 2005; Penrod, 2010] that generates tens of millions of commerce annually [Fedler, 1989]. Over 100 bass tournaments are launched from its shores annually. Its intact forests harbor Important Bird Areas [Audubon, 2009], riparian biodiversity [DNR, 2005], and hotspots of avian and herpetological biodiversity [FWS, 2006].

(ii) Because agriculture is a less important contributor to pollution loads, the watershed epitomizes the issues of forest retention and urbanization, and provides an ideal test case for examining these issues. The Bay watershed loses to development about 100 acres of forest per day [CBP, 2010], and pollution from urbanization is increasing [CBP, 2007]. In the same vein, Mattawoman's majority-forested watershed is targeted for development by Charles County policies promoting urbanization of an area larger than Washington D.C., with 10,000 acres of forest-loss projected by 2030 [ACOE, 2003].

(iii) A GIS-supported model based on the Hydrologic Simulation Program Fortran code already exists for Mattawoman and may serve as a foundation for testing enforcement scenarios. The Army Corps of Engineers developed the model to study the impacts of projected urbanization [ACOE, 2003]. The model relies on unusually detailed calibration data from continuous monitoring stations operated by the Smithsonian Environmental Research Center [SERC, 2000].

(iv) Mattawoman is covered by Prince George's and Charles Counties' Phase-I MS4 permits (Municipal Separate Storm Sewer System), providing EPA with one of its key enforcement backstops. In addition, there is little headroom for nutrient reduction through improvements to wastewater treatment plants. Hence Mattawoman tests the ability to attain reductions through, for example, stronger requirements in, and enforcement of, county MS4 permits.

(v) Success in protecting as valued a resource as Mattawoman would bolster confidence in the commitment to restore the Bay using the Bay TMDL strategy. On the other hand, permitting its degradation-as is currently happening-undermines confidence in broader bay-wide efforts: a recent report finds a steep decline in fish abundance and species richness in the tidal estuary, and correlates the decline to watershed urbanization [Uphoff, 2009]. Consistent with these problems, usage of non-tidal waters by spawning anadromous fish was found also to have plummeted in the last decade. Are the strategies in the Bay TMDL able to reverse this trend?

(vi) Mattawoman enjoys broad support from resource agencies [Carmichael, 1992; ACOE, 2003; Groves, 2005; Uphoff, 2005; Uphoff, 2009; FWS, 2006; FWS, 2009].

It also receives wide public support [SGA, 2007; Sierra, 2007; Sierra, 2010; American Rivers, 2009; Audubon, 2009; SGACC, 2009; MBFN, 2010].

(vii) A past reluctance on the part of local county government to fully embrace Bay initiatives in general, and Mattawoman in particular, may be changing as Mattawoman concerns became a political issue in the recent Charles County election cycle; 80% of the board of commissioners have changed. Hence, here is place to demonstrate an ability to overcome past land-used decisions detrimental to water quality, a necessary ingredient of any strategy to restore the Bay in the face of increasing pollution from urbanization.

(viii) As documented below using Mattawoman as an example, the past approach of restoring the Bay by delegating authority to states and waiting does not work. Even now, it is disturbing that Maryland's draft Watershed Implementation Plan (WIP) fails to provide sufficient internal assessments of the effectiveness of its program, and fails to supply sufficient information to judge the strength of its enforcement program [FN 1] Even so, Maryland's WIP is among the better ones, and Mattawoman would provide an ideal place to test state resolve in a state with perhaps the strongest institutional heritage for Bay-restoration.

[FN 1] See appended comments to the Maryland Department of the Environment (MDE) on its draft WIP.

Response

Because Maryland submitted an improved WIP over the draft, EPA chose to reduce or remove the backstop allocations that were proposed in the draft TMDL. EPA will continue to provide ongoing oversight of Chesapeake Bay jurisdictions. This includes EPA's review of progress in Maryland's NPDES permit program and Nutrient Trading Program in 2011 to ensure consistency with EPA expectations. With each successive WIP in Phase II and Phase III, it is expected that each jurisdiction will work with its local partners to refine the allocations in the Phase I to a finer scale. EPA encourages local groups such as your's to reach out to Maryland to participate in the Phase II WIP development process.

Comment ID 0495.1.001.005

Author Name: Long Jim

Organization: Mattawoman Watershed Society

We recommend that the following specific issues be reinforced in the WIP. We note where appropriate how employing Mattawoman as an example sharpens the need for resolve, specificity, and commitment.

Details must be supplied for how the options will be achieved by 2017 for retrofitting 30%, 40%, or 50% of untreated impervious surface in municipalities with a Phase I permit for a Municipal Separate Storm Sewer System (MS4) [WIP, 2010]. For example, Charles County, which is responsible for $\frac{3}{4}$ of Mattawoman's watershed, was required by its 2002 MS4 permit (a Phase I permit) to retrofit 10% of its untreated impervious surface every 5-year permit cycle. This pace is far below that necessary to achieve a 30% retrofit by 2017. Even so, Charles County is far behind schedule. While available figures appear inconsistent, please note that either 2607 acres or 765 acres are untreated, depending on the source.[FN 1] At the rate of 10% retrofit every five years, and allowing for a seven year period from the 2002 permit to the start of 2010, one would expect either ~365 acres or ~110 acres to have been treated, depending on which figure is used for the untreated impervious surface. In contrast, only 45 acres were treated as of July 2010 [WRE, 2010; MS4, 2010] far below the permit requirement. Thus it appears that enforcement strategies are inadequate.

Yet the strategies given in the WIP for ensuring compliance of impervious surface retrofits [WIP, 2010; p. 5-23] appear to be identical to the present inadequate strategies for enforcing compliance with existing MS4 permits. Therefore, much more detail describing enforcement steps is needed to assure that the past practice of overlooking deficient MS4 performance will be rectified.

Provide detail for how forest preservation goals will be attained. The WIP discusses an element to "[s]trengthen Maryland's Forest Conservation Act by requiring State and local programs be amended to require a 'no net loss of forest.'" We strongly endorse a strategy of retaining forest land, because forest contributes minimally to, and even reduces, nutrient and sediment loads, while paying dividends many times over by moderating stormwater discharge rates and amounts, enhancing stream baseflow, cooling stream water, providing habitat, increasing property values, and providing an aesthetic landscape. In addition, a forested landscape is a critical element for mitigating against the impacts of climate change [Palmer, 2007].

The forest preservation goal could be strengthened considerably by adding an element that identifies "intact forests" for protection. Protecting intact forest is much more effective and efficient than the present WIP proposal of planting trees for no net loss of forest because tree planting is most likely to target open-space lands that contribute less loading than the development replacing the original forest.

Furthermore, the WIP contains no quantitative analysis of how realistic is a goal of no net forest loss through mitigation. For example, the Army Corps projects that Mattawoman would lose 10,000 acres of forest in the next twenty years [ACOE, 2003]. The impacts of this cannot be mitigated, nor realistically "planted away." In addition, identifying 10,000 acres for mitigating tree-planting appears to be a major challenge. Without additional detail, this challenge calls into question the prognosis of this worthy WIP strategy.

Outline stronger standards for Smart Growth and limiting sprawl development as a means to improve water quality, that includes a re-evaluation of Priority Funding Areas. The "intact forest" element above dovetails with this idea. The governor's fully funding Program Open Space is another consistent and welcome strategy, as noted in the draft WIP, and can be means of protecting intact forest.

The WIP relies in part on the concept Priority Funding Areas (PFAs) and Comprehensive Plans as a component of Smart Growth. However, as the case of Mattawoman illustrates, these approaches require substantial strengthening if they are to be effective. For example, Charles County's Comprehensive Plan establishes a "development district" that is 30% larger than Washington D.C. As noted by DNR, "[p]rotection of this watershed appears to be in direct conflict with the location and size of the development district" [DNR, 1996]. We also note that such a large area, overlapping much of the watershed of one the Bay's most productive tributaries, is antithetical to Smart Growth.

An important specific means to strengthen the Smart Growth component would be to re-evaluate PFAs with respect their impacts to water quality. In fact, "[t]he statutory criteria for drawing PFAs are based on existing densities, infrastructure capacities, and municipal boundaries, not on careful plans that consider where future growth should occur. [Lewis, 2009; emphasis added]. Many PFAs were designated in haste and with minimal, or no, public input [Lewis, 2009]. In the case of Bryans Road, a one-stoplight town that drains to sensitive spawning reaches of Mattawoman and its tributaries, no public input was solicited before its designation as a PFA, but the public process required for subarea plans later revealed intense public opposition to the PFA designation.

Bryans Road is a PFA that appears to be extremely poorly cited for protecting the aquatic quality of Mattawoman Creek. Included within the PFA boundary are three noteworthy Mattawoman tributaries: (i) the heavily forested headwaters of one of Mattawoman's outstanding anadromous-fish spawning-tributaries [Powell, 2005]; (ii) the headwaters of another tributary that drains to head of tide [Powell, 2005]; and (iii) a globally rare Magnolia Bog wetland in the headwaters of

yet a third tributary [NatureServe, 2010]. Bryans Road is also adjacent to Chapman State Park, is within a Maryland Stronghold Watershed [DNR, 2008] and is surrounded by forested land that drains to especially sensitive spawning waters of Mattawoman Creek that include the state's most biodiverse herpetological site [DNR, 2005].

Listing Bryans Road as a PFA has impacts beyond the degradation of its local rich natural resources. Its listing was part of a strategy to cement Charles County's extremely large development district and to serve as a pretext for new highways that would open large areas to sprawl development (the proposed Cross County Connector and Western Waldorf Bypass). The Bryans Road PFA effectively replaces the Chapman's Landing development proposal that was circumvented in 1998 when the state and the Conservation Fund purchased what is now Chapman State Park. Note that the state's original Smart Growth initiative was motivated in no small part by the Chapman's Landing proposal, a disturbing irony given the evolution of plans for Bryans Road just one mile north. Hence, the example of Bryans Road shows how a re-evaluation of PFAs could limit sprawl development and support Smart Growth alternatives, such as investing in Waldorf, while enhancing the goals of the WIP.

It might be expected that the new WRE requirements for county Comprehensive Plans could be a tool to effect Smart Growth solutions to water pollution. The WRE is intended to link land use decisions to attaining TMDL reduction, for example, and is mentioned favorably in the draft WIP. However, for this to be the case, stronger state oversight is clearly needed: as the Charles County draft WRE shows, none of the three scenarios considered in the WRE comes close to meeting Mattawoman's TMDL out to 2030, as noted above.

In summary, as the above examples attest, Maryland's draft Phase I WIP, while representing a reasonable start and obvious effort, could easily break down if not substantially reinforced with more specificity for implementation. We have chosen three specific examples discussed in the WIP, namely retrofitting untreated impervious surface, forest preservation, and Smart Growth as a tool (in principle, a Maryland strength), to illustrate how the present assurances in the WIP need to be vastly improved to be convincing and successful.

[FN 1] According to Charles County's 2010 MS4 annual report, 2607 acres of impervious surface in the "development" district are untreated (p. 55). The figure is 765 acres, according to the draft Water Resources Element, which has not yet been submitted to the state in final form (Section 3.a).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0538.3.001.001

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Maryland should reallocate load reductions between point sources and nonpoint sources and develop a regulatory framework to ensure that nonpoint sources meet their reduction requirements.

The Draft Phase I Watershed Implementation Plan (WIP) does not adequately address how the proposed pollution reduction strategies are justified or cost effective. To justify the allocations of load reductions, the WIP must demonstrate that load reductions are commensurate with that source's environmental impact, will be imposed on sources with the capacity to achieve the reductions, and that the reductions are cost effective. Three facts found in the WIP indicate that the current slate of options considered do not meet this standard: (1) agriculture, unregulated urban stormwater, and other nonpoint sources comprise a significantly larger portion of the current pollutant load than urban stormwater[FN 1], (2) costly urban stormwater retrofits will be imposed on NPDES jurisdictions with insufficient amounts of state funding offered to help pay for these improvements and no consideration of whether these costs will be justified, and (3) the nonpoint source sector will be expected to achieve modest pollution reductions primarily through a series of state or federally-funded voluntary programs.

Section 319 of the Federal Clean Water Act directs the states to create and implement nonpoint source pollution programs to ensure that all navigable waters meet water quality standards. The statute also states that these programs should contain a regulatory and enforcement component. It is inequitable to force NPDES permit holders to achieve stringent reductions through expensive retrofits under threat of penalty while the nonpoint sector is only enticed with carrots funded by government. To be effective and fair, Maryland's nonpoint pollution control program must include a credible regulatory and enforcement component. The Water Quality Improvement Act, requiring nutrient management plans, was a good start. Maryland should leverage nutrient management plans to achieve more stringent reductions from agriculture. Plans should be monitored and enforced with the same stringency as MSA permits and the results quantified. If the management plans do not achieve the pollutant reductions necessary, the Department of Agriculture should make them more stringent. These are the cornerstones of a robust adaptive management strategy.

Finally, it is worth noting here that the Chesapeake Bay TMDL contemplates the states' nonpoint source programs stepping up to take pressure off of the NPDES permit holder community. Since the federal government lacks authority to regulate nonpoint sources but the states have ample authority to do so, EPA held out stringent "backstop" measures on point sources as an inducement for states to beef up their nonpoint source programs. Instead, the draft WIP does not meet this challenge and threatens to impose a heavy burden on local stormwater programs and wastewater treatment plants. Rockville disagrees with this strategy and urges Maryland to reexamine its implementation priorities.

[FN 1] See e.g. Maryland Watershed Implementation Plan 5-33, Figure 5.1. (showing that urban stormwater represents only 14% of nitrogen loads and the sum of all sources attributable to agricultural activity causes nearly 40% of loads).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0538.3.001.002

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Maryland must reform State law to support local stormwater utility fees and provide technical expertise to local

stormwater programs to help quickly develop and implement local funding sources.

As one of a minority of local jurisdictions implementing a stormwater utility fee in Maryland, Rockville can attest to the amount of effort, time, and planning required to create and manage local funding sources. Chapter Five of the WIP cites stormwater utility fees as a key source of funding for implementing the TMDL and Rockville agrees. Utility fees, in addition to increased State and Federal funding, will be an important component of these funds. Unfortunately, Maryland is unprepared to implement local stormwater fees statewide in time to meet 2017 interim goals. Legal uncertainty regarding the limits of authority, local political opposition, and technical impediments will prohibit most MS4 communities from adopting stormwater utilities in the near term. Therefore, if Maryland is to rely on local funding to restore the Chesapeake Bay, the State will need to act aggressively in reforming state law to require local utilities. In addition, we urge the State to provide technical assistance and funding to local programs to lower the technical barriers preventing the swift adoption of utility fees or other funding mechanisms.

The first major impediment to creating local stormwater utility fees is the lack of clear legal authority under State law. The current law authorizing a "system of charges" is vague, disputed, and provides inadequate authority for local programs to fund the requirements of the WIP. For example, the Maryland Department of Environment's Model Stormwater Utility Ordinance (2003) states that government owned properties may be assessed the stormwater utility fee. This guidance is contradicted by an opinion of the Maryland Office of Attorney General, which implies that stormwater fees cannot be assessed on government property.[FN 2] The lack of legal certainty concerning stormwater utilities as a fee for service prevents many communities from adopting or fully implementing utility fees.

Secondly, many local jurisdictions lack the capacity and political will to implement stormwater utilities in time to meet the 2017 interim goals. If local jurisdictions wait until an acute funding need exists to investigate stormwater utilities, the long period of time required to design, adopt, and implement a program will likely mean that the 2017 interim goals will not be met. Similarly, many smaller stormwater programs lack the capacity to gather and manage the data necessary to create a utility. The Maryland Department of Environment should act quickly to minimize this lag time by helping with the costly and difficult tasks of gathering impervious surface data and selecting a rate structure.

In summary, Rockville urges the Maryland to enact legislation that requires local jurisdictions to adopt stormwater utility fees and that clarifies the responsibility of government to pay for the stormwater pollution it generates. Without such legislation, many local jurisdictions will not implement stormwater utilities until it is too late to meet the interim deadlines proposed in the WIP.

[FN 2] 91 Op. Att'y Gen. 152, 155 n.3 (2006).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0538.3.001.003

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Maryland should decrease the amount of stormwater retrofits required by 2017 to allow MS4 jurisdictions adequate time to conduct analyses of their potential retrofit opportunities and time to design and budget these projects.

Even where local stormwater programs have adequate funding sources to construct stormwater retrofits, these programs must have sufficient time to assess their retrofit opportunities and to plan projects. For example, the Little Pimmit Run Watershed Retrofit Plan in Arlington County, which assessed the retrofit opportunities in Arlington, Virginia, took nearly two years to complete. Most jurisdictions will need to complete a similar planning effort before retrofit work can begin. Retrofits without proper planning will be expensive and ineffective. Local programs should be given time to find the most cost effective and practical ways to reduce pollution loads.

Once programs identify retrofit opportunities, they need time to schedule the projects into their capital improvement budgets and to complete project design. Based on our experience, this process can take up to two years to complete. This would mean that the first retrofit projects might not begin until the fifth permit year. Furthermore, many local programs lack the capacity to manage the number of projects that would be required to achieve the interim goal of 20%. Based on these planning, process, and logistical constraints, local programs will likely fail to meet the 2017 interim goals as written.

The permitting process for building retrofits is another barrier to the rapid implementation of retrofit requirements. Maryland must streamline the waterway and wetland joint permitting process, in conjunction with the Army Corps of Engineers, since these permit approvals often take six to nine months from submittal of engineering plans.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0538.3.001.005

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Maryland should provide flexibility for urban and suburban stormwater programs to demonstrate pollution load reductions with other methods where stormwater retrofits are impractical.

Until MS4 jurisdictions can assess their retrofit opportunities, it is impossible to give reasonable assurance that pollutant reductions are feasible. The Maryland Department of Environment should allow local programs flexibility to use other pollution reducing technologies in lieu of stormwater retrofits where assessments show that retrofits cannot provide the necessary load reductions, or where more effective cost efficient opportunities exist. For example, many dense urban communities have limited space to install stormwater retrofits without incurring disproportionately high costs. Future NPDES permits should give credit towards the retrofit requirement for other activities such as stream restoration, street sweeping, and tree canopy improvement.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0538.3.001.006

Author Name: Charles Mark

Organization: City of Rockville, Maryland

The WIP should clearly define how the amount of required stormwater retrofits will be calculated and provide flexibility for local programs to achieve maximum benefit from their retrofits.

Part of the stormwater retrofit planning process will require MS4 jurisdictions to assess their area of "pre-1985" impervious surface and then plan appropriate projects to achieve the required percent treated. Future WIPs must clearly spell out how these areas are calculated and how the area treated is quantified to avoid confusion and inadequate implementation. For example, there are numerous areas in Rockville that were developed pre-1985 with some form of stormwater management prior installed while there are post 1985 properties that have less management due to site constraints. The definition should address what retrofits will count towards meeting a retrofit requirement.

Such a definition is especially important considering the long range planning that will need to successfully complete all required retrofits. The sooner that program managers can enter their budget process with "concrete" requirements, the sooner funding will be made available to start retrofit projects.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0538.3.001.007

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Maryland should not prohibit urban communities from using fee-in-lieu for forest conservation.

On page ES-16, the WIP discusses potential amendments to the Forest Conservation Act that would prohibit local programs from collecting fee-in-lieu payments for projects not able to meet forest conservation requirements on site. Rockville supports the concept of no net loss of forest at a statewide level. In fact, our local tree reservation program is a model for other communities and has resulted in a 44% city-wide tree canopy. However, a prohibition of fee-in-lieu payments would have serious unintended consequences for our community. Rockville lacks the available private land to

create forest mitigation banks, meaning that developers would have to secure forestry easements outside of the City limits, essentially "exporting" and likely reducing Rockville's valuable urban tree canopy. The City removed the option to meet forest conservation off-site several years ago when there no longer was adequate forest planting space on City parkland. In addition, the City has not allowed developers to use existing forest on City parkland to meet their on-site forest conservation requirements since the City deems these forests as already preserved. Through the collection of fee in lieu, the City is able to plant between 400 and 600 street trees per year while maintaining and protecting our existing forest canopy. Removing this source of funding would jeopardize Rockville's street tree and forest maintenance programs.

Rockville's Forest and Tree Preservation Ordinance boasts some of the most stringent reforestation and afforestation standards in the state.[FN 3]Where these standards cannot be met on site, the City uses fees-in-lieu to plant and maintain trees within Rockville. Rockville lacks adequate space to create forest mitigation banks within its limits. Therefore, a strict application of a no net loss forest policy could actually decrease the number of trees in Rockville, thereby increasing the amount of urban stormwater discharged into the Potomac River and Chesapeake Bay. Maryland should continue to allow urban communities the flexibility to collect fee-in-lieu so they may implement successful local forest conservation strategies in the urban context and as a strategy to reduce urban stormwater runoff.

[FN 3] <http://www.rockvillemd.gov/government/citycode/ordinance12-07.pdf>

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0567.1.001.001

Author Name: Gracie James

Organization: Maryland Aquatic Resource Coalition

Comments on Maryland's Chesapeake Bay TMDL Watershed Implementation Plan

MDE and DNR are to be congratulated for such a comprehensive document. I am especially pleased that the approach now includes two-year milestones for implementation.

The Watershed Implementation Plan includes a large list of practices which can be used to meet the goals of the TMDL requirements for the Chesapeake, but does not prioritize the practices. If public input is to be used to develop the prioritization plan, more direction on cost effectiveness. If cost effectiveness is used to help prioritize then there needs to be some understanding of who pays and how. I believe that agricultural practices need to be supported with public money. Stormwater retrofits should be paid for with a fee based upon impervious area. New stormwater management should be paid for the development industry.

A major concern for recreational users such as fishermen is that there is no target reduction for sediment in the TMDL for the Chesapeake Bay watershed. As I understand it the WIP assumes that phosphorous reductions will get the necessary sediment reductions. A detailed look at this assumption will show that although it may be valid for agricultural sources it is without basis for urbanized and urbanizing areas. Stream instability is a major source of sediment delivery

to stream channels in these developed watersheds. Phosphorous reduction will most likely not be focused on this source of sediment.

A serious consequence of this omission will be the undervaluing of stream restoration as a strategy for restoration of the Chesapeake Bay watershed. Many small streams in the developed areas of Maryland suffer from significant instability and are major sediment sources. Since there is no specific target for reduction of sediment which can be a major and needed benefit of stream restoration there will be no incentive for this practice.

It seems that stream restoration is considered only for its ability to reduce nutrients and nutrient reduction is not well understood in streams. Work by Margaret Palmer and others is attempting to quantify nitrogen removal in the hyporheic zone of stream channels. This is one mechanism for nitrogen reduction in streams but not the only one. Nutrient processing by aquatic organisms in a healthy stream is a major factor which is not even considered much less estimated. The annual leaf and twig fall from riparian zones into stream systems is processed nearly quantitatively by macro and micro-invertebrates in healthy streams with diverse aquatic life. When streams become unstable and deliver excess sediment into their channels virtually all aquatic life can be eliminated, thus eliminating this form of nutrient processing. Under these conditions the allochthonous inputs to a stream system, rather than being incorporated into the food web, get transported downstream and taken up in anaerobic digestion. Thus, the secondary impact of an unstable stream channel is to increase nutrient delivery and cause additional problems such as increased biochemical oxygen demand and significant reductions of dissolved oxygen.

For these reasons it is important to have an understanding of the magnitude and impact of sediment from stream channel erosion. Without this understanding we are seriously underestimating the benefits of stream restoration. Research is needed to help quantify these impacts and thus the benefits of restoration. In the meantime I recommend that preliminary estimates of the volume of eroded sediment from stream channels be an important factor to evaluate in considering stream restoration as a process for inclusion in the WIP. A standard amount of sediment reduction cannot be used as a basis for evaluating stream restoration benefits because the amount will vary with the amount of sediment being generated by the stream being restored.

Stream restoration in urban and urbanizing areas should be included as an important practice for restoring the bay watershed and it should be coupled with stormwater retrofits in the drainage area of the stream being restored. The combination of stormwater retrofits effort along with stream channel restoration will maximize the benefits of nutrient AND SEDIMENT REDUCTION.

Thank you for the opportunity to comment on the Phase I WIP. I look forward to a continuing dialog as the development of the Phase II WIP is developed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0673-cp.001.001

Author Name: Tutman F.

Organization:

We recommend that the Maryland WIP devote more attention to the small waste water treatment plants [WWTPs] that have a profound effect on certain rivers. For example, the Galena, Maryland plant is ranked low in Maryland's funding

and receives no grants, yet it is the source of half of the nutrients in the Sassafras river, and has a very direct discharge to the Bay. The Sassafras watershed has been identified in the Chesapeake Bay Program data and presentations as "hot" - ie -- a land area contributing more nutrients and needing greater emphasis since it has a greater affect on the main stem. A tiny amount of money, well placed in these and similar minor WWTPs could go far in improving certain critical ecosystems. But since the WWTP is small, it is ignored by the Maryland WIP, even though, relatively speaking, its upgrade could have a great beneficial impact.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.017

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The text below has been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Dear Secretaries Griffin, Hall, Hance, and Wilson:

In August 2010, the Chesapeake Bay Foundation (CBF) submitted a letter with recommended actions to be included in Maryland's Watershed Implementation). The overarching premise of each of our recommendations was to challenge Maryland beyond the status quo, as a WIP that contains largely the same practices and apps previous plans will not result in water quality improvements.

While CBF congratulates Maryland for outlining a suite of actions that, if fully implemented, could meet statewide allocation targets for nutrients and sediment, we remain concerned that Maryland's draft WIP does not discuss meaningful changes to current programs or funding mechanisms that would actually result in achievement of the targeted results. In short, the WIP does not provide reasonable assurance that it will achieve pollution requirements and improve water quality throughout the state of Maryland.

As you know, the process of developing the Bay-wide TMDL actually began over a year ago with a series of federal judicial consent decrees and settlement agreements that addressed the failure of the Bay jurisdictions to meet the Clean Water Act (CWA) requirement identifying all impaired waters within their respective boundaries and developing plans for those waters. In 1998, Maryland entered into a memorandum of understanding, Environmental Protection Agency (EPA) that required Maryland to complete listings of impaired waters and develop TMDLs for those waters within 10 years. Memorandum of Understanding between the State of Maryland and the U.S. Environmental Protection Agency. Pursuant to that agreement, EPA would complete the listings and TMDL development if Maryland did not.

On June 28, 2000, the governors of Virginia, Maryland, and Pennsylvania, the chair of the Chesapeake Bay Commission, and the Mayor of the District of Columbia responded to various decrees and agreements by signing, with then EPA Administrator

Carol the Chesapeake 2000 agreement which, among other things, committed to reduce nitrogen, phosphorus, and sediment sufficiently to remove the Bay and its tidal tributaries from the impaired waters lists by 2010.

In December 2003, EPA, Maryland, and the other Bay jurisdictions agreed to the nitrogen, phosphorus and sediment allocations that became the basis for "tributary strategies," designed to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. Maryland completed its Tributary Strategy in 2004 and an implementation plan in 2007. [FN1] The failure to achieve that goal triggered the need to develop the Bay TMDL - a process in which Maryland has been a full and cooperative participant.

Consistent with EPA's letters to the Principals' Staff Committee of September 11, 2008, November 4, 2009, and April 2, 2010, we strongly encourage the state to provide the necessary details in their WIP for how they will achieve the necessary reductions. EPA's assessment of Maryland's WIP shortcomings is correct in noting the lack of specifics on necessary changes to existing programs; unbalanced focus on point source reductions to meet 2017 reduction targets; and the need for "enforceable or otherwise binding commitments" to achieve agricultural and stormwater reductions. Attached hereto and incorporated herein by reference are EPA's assessments.

We have provided "CBF's Detailed Comments on Maryland's Draft WIP," dated November 8, 2010, as an attachment hereto . It is incorporated herein by reference. Without the bold actions enumerated in these Comments, Maryland will fail to provide reasonable assurance, will not meet its current Milestones, and will not make significant progress toward TMDL implementation.

In submitting these comments, we incorporate herein by reference the comments of the Choose Clean Water Coalition; those of Donald Boesch, et al.; and those of CBF, all of which were sent to Administrator Jackson in reference to Docket no. EPA-R03-OW-2010-0736.

1 . THE WIP NEEDS ENFORCEABLE AND BINDING COMMITMENTS TO INCREASE WATER QUALITY PROTECTIONS

The Draft Phase I WIP contains few commitments that would provide "reasonable assurances" that pollution reduction targets will be met. While the WIP contains options to expand agricultural best management practice implementation, increase stormwater retrofit requirements, increase advanced septic system technologies, and increase natural filters on private and public lands, there are no commitments for programs, developing new regulations, generating dedicated revenues, or creating other requirements that would ensure these actions are actually taken . Such options need to be backed with enforceable or binding commitments because voluntary implementation alone will not be sufficient to meet the extent of actions required to meet Maryland's nutrient pollution reduction goals under the Bay Total Maximum Load (TMDL) currently proposed by EPA.

It is imperative that Maryland include concrete commitments regarding the programmatic, statutory regulatory changes - including commitments to necessary funding - that will be necessary to provide "reasonable assurances" for the federal EPA, but can give stakeholders in Maryland the confidence sectors are being required to increase their actions in measurable and accountable ways. In order to substantially increase implementation of outlined activities, the State and Local governments, private individuals, and others in the private sector will have to increase their resources targeted to pollution. Below are several opportunities where reasonable assurances can be achieved through regulatory, or programmatic changes that are enforceable or otherwise binding commitments.

Increase the Bay Restoration Fund to Ensure ALL Major Wastewater Plants are Upgraded

Maryland's Bay Restoration Fund (BRF) has been a model of success by creating a dedicated fund from reductions. Since its creation in 2004, the modest fee on wastewater treatment and septic users has provided significant funding to upgrade the state's largest wastewater treatment facilities as well as fund septic upgrades and nonpoint pollution control with cover crops. Unfortunately, initial cost projections have been exceeded as wastewater treatment facilities go through engineering, design, and construction. It is estimated that the BRF will begin experiencing a structural deficit as early as 2012, short by more than 1 Million. [FN2]

The only solution that will ensure continuity in facility upgrades - and ensure both essential pollutant reductions and compliance with the existing upgrade schedule - is to increase the BRF fee. Increasing the current monthly fee from \$2.50 per Equivalent Dwelling Unit (EDU) to \$5.00 per EDU will provide the revenues to complete the task of upgrading all 67 major treatment facilities to Enhanced Nutrient Removal (ENR) technology while still meeting the existing upgrade schedule. Since the Draft WIP relies on nonpoint source reductions to meet its 2017 nutrient reductions, it is incumbent on the state to ensure that the funding will be in place to provide reasonable assurance of achievement of these reductions.

Stipulate Specific Performance Standards for Urban Stormwater Retrofits

Maryland's WIP lacks sufficient details regarding performance of stormwater retrofits and "restoration" activities in urban areas. Such retrofits and restoration of urban lands is the cornerstone of Maryland's WIP to reduce loads from existing development, yet there is no clear indication of what actions must be taken to "count" toward these load reduction goals. Maryland must better articulate the kinds of practices that would be acceptable to retrofit untreated urban and suburban lands, and ensure consistency with existing regulations that require Environmental Site Design (ESD) and lower impact technologies and approaches to meeting stormwater treatment requirements. For example, urban retrofits should focus on the installation of decentralized practices that maximize infiltration, filtration, evapotranspiration, or reuse as treatment methodologies, and must strive to treat at least the water quality volume from the contributing area.

Furthermore, Maryland must ensure that all retrofits, whether as part of the MS4 permits to meet load reduction requirements for the TMDL, or required under the Stormwater Management Act as a condition of redevelopment, be adequately designed, installed, inspected and maintained. The state needs to describe how they intend to track and enforce these requirements to meet the 2007 law and the MS4 provisions.

Require the Implementation of Local Stormwater Infrastructure Revenue Streams

The Draft WIP correctly identifies existing, unmanaged stormwater as a key target for retrofit in order to reduce nutrient and sediment pollution from the developed sector. The State has laid out three possible retrofit requirements for inclusion in the Phase I MS4 permits as they come up for revisions and modification : 30%, 40%, or 50%, and has asked for specific feedback. CBF supports inclusion of the 30% retrofit requirement - requiring MS4 jurisdictions to retrofit 30% of their currently untreated area during the permit term - consistent with the current Montgomery County MS4 permit. Achieving this level of retrofit within the five year permit term is an ambitious target. However, aggressive retrofits in our urban environments are necessary to restore stream health and reduce nutrient and sediment loads from developed areas.

A primary obstacle that the state must help to overcome is the lack of sufficient dedicated revenues to specifically

address the expensive needs associated with stormwater management and retrofits within existing urbanized areas. Most counties currently allocate minimal resources to meet basic stormwater program functions. Local jurisdictions need to develop and implement local stormwater infrastructure fees (based on the amount of impervious surfaces or similar mechanism) both to generate sufficient funds for infrastructure improvements and stormwater retrofits, as well as to fund ongoing inspections and maintenance of urban and suburban stormwater facilities. Much of the future TMDL implementation will fall on local governments; they therefore, must be prepared to pay for necessary upgrades, retrofits, and restoration work.

Unfortunately, current statutory authority which allows local governments to impose such fees has largely been unutilized. The State must require the creation of local infrastructure revenue streams. The time has come for the state to legislatively require local jurisdictions with stormwater responsibilities to create local stormwater infrastructure revenue streams through an impervious surface fee or similar assessment of a user fee. Such a state requirement would ensure all jurisdictions have resources to help meet stormwater management requirements, while ensuring modest parity among jurisdictions fearful of "going it alone." An additional "incentive" would be to directly tie State financial assistance - via grants, low interest loans, and technical assistance for stormwater infrastructure improvements, retrofits and related restoration work - to the establishment of a local stormwater revenue stream.

Develop a Nutrient Trading Policy for MS4 Permittees

The cost to reduce nitrogen and phosphorus from stormwater systems through retrofits is by far the expensive among all sectors. Recent analysis by the World Resources Institute indicates that nutrient trading could save MS4s hundreds of millions of dollars per year. [FN3] If MS4s could purchase nutrient credit portion of their waste load allocation, they could substantially reduce their compliance costs. The policy must be predicated on the protection and maintenance of local water quality and be constrained to segments if receiving waters are impaired, in order for MS4 permittees to participate in Maryland's Phase II (non-point source) trading programs.

Improve Stormwater Management from Smaller Jurisdictions and Active Construction Sites

Because untreated urban and suburban stormwater must be addressed in order to reduce pollution in existing developed areas, the draft WIP must detail the efforts Maryland will pursue to expand MS4 permit requirements in Phase II permits. Additionally, Maryland must expand the scope of the MS4 program to include smaller jurisdictions with populations of 5,000 - 10,000. Many of these communities lack stormwater management and may represent meaningful opportunities for restoration and retrofits. Adding a requirement in Phase II permits to retrofit 40% of untreated impervious acres by 2020 should also be included in the TIP.

In addition to expanding stormwater treatment to even smaller areas of existing development, Maryland must also make significant improvements in their existing General Construction Permit in order to reduce sediment and nutrient pollution from active construction sites. General Permit requirements need to include clear rules for phased site grading, and much more rapid site stabilization than the current 14-day stabilization, as requirements for buffers on all active construction sites. In this regard, mandatory sediment and nutrient control requirements would go a long way toward addressing a significant source of sediment and nutrient, Maryland's impaired waterways.

Improve Nutrient Management Planning and Implementation

The recent draft report by the U.S. Department of Agriculture highlights that although progress has been made on reducing sediment, nutrient, and pesticide losses from farm fields through conservation practice implementation in the Chesapeake Bay region, a significant amount of conservation management still needs to be done to reduce nonpoint agricultural sources of pollution. [FN4] Specifically, the report indicates that significant improvement is still needed in nutrient management (proper rate, form, timing, and method of application throughout the region). About 81 percent of the cultivated cropland acres require additional nutrient management to reduce the loss of nitrogen or phosphorus from fields. The most critical conservation concern in the report is loss of nitrogen through subsurface pathways, most of which eventually contribute to stream loads. This highlights not only the importance of cover crops, but also the need for Maryland to receive assistance to address the "bottleneck" for the development of comprehensive nutrient management plans for concentrated animal feeding operations. Maryland must devise a detailed strategy for achieving compliance and enforcement of these applicable state and federal regulations.

Require Cover Crops on Priority Acres to Achieve Annual Goal

Maryland is assuming substantial nitrogen reductions from the agricultural sector will come from planting cover crops on more than 300,000 acres each and every year. The Draft WIP outlines two scenarios for cover crop implementation - 355,000 or 500,000 acres annually - but includes no details of necessary programmatic or regulatory changes to achieve either. Without such details on enforceable or otherwise binding mechanisms, the draft WIP fails to provide the required reasonable assurance that the state can accomplish the outlined reductions from cover crops. In recent years, the Maryland Department of Agriculture (MDA) has increased per acre payment opportunities to incentivize early planting, planting of preferred grains, and cover crop planting after manure in order to maximize cover crop implementation. [FN5] However, this incentive-driven, voluntary program still struggles to increase participation to current 2-year Milestone levels of implementation (325,000 acres/year by 2011); therefore, the state needs to look beyond voluntary or purely incentive-driven programs.

Maryland must change its approach to implementing cover crops. Cover crops must be required on acres most at risk for nitrogen loss as a mechanism for raising rates of implementation and targeting limited cost-share dollars where the greatest environmental benefits can be gained. At a minimum, cover crops must be: required for fields after corn and on acres that have received manure. These scenarios currently are eligible for bonus payments under the cover crop program because they represent the best opportunity for residual nitrogen uptake by a winter crop which would likely otherwise be lost to the environment. Roughly 470,000 acres of corn were planted in 2009 [FN6] suggesting such a strategy of requiring cover crops on targeted high-risk acres could achieve annual implementation goals. Maryland's Water Quality Improvement Act and its implementing nutrient management regulations could be amended to require cover crops under specific circumstances, as an element of sound nutrient management. Only by amending the state law and regulations will Maryland have an enforceable mechanism to ensure that nutrient reductions could be counted on. Cost-share should remain available to these acres to help defray costs, but if necessary, per acre payments should be reduced to a level that would allow the state to offer financial assistance to all high risk acres.

Require Riparian Buffers Statewide

Buffering waterways is one of the most important ways to reduce nitrogen pollution of Maryland's rivers and streams. Maryland's Tributary Strategies recognize this by collectively calling for more than 93,000 acres of forested and grassed buffers on farm land, as well as fencing more than 11,000 acres of stream to prevent livestock access, and subsequently allow vegetation to reestablish and protect the streams. Unfortunately, progress on Maryland's first

Milestone goals for forested and grassed buffers does not reflect the importance of these practices; as of May 2010, the state had met only 8% of its forested buffer milestone (245 of 3,000 acres) and about 17% of its grassed buffer milestone (1,196 of 7,000 acres). [FN7]

Maryland should require buffers on ALL streams statewide, both on farms and developed land, and costshare funding to buffer implementation where they currently do not exist. Buffers provide long-term efficient nutrient reduction and stretch the benefits of limited cost-share dollars beyond a single year. Furthermore, buffers provide myriad environmental benefits including habitat, stream temperature (in forested buffers), nutrient removal (2-8 times the nitrogen removal) via in-stream processing (fore) [FN8] and carbon sequestration.

The state must maximize use of the Conservation Reserve Enhancement Program (CREP) and Maryland Agricultural Cost Share (MACS) Program to implement and maintain buffers on farm land, especially adjacent to impaired waterways and on highly erodible lands. An opportunity for achieving greater retention and restoration on developed lands would be upgrading the Forest Conservation Act (FCA) to a "no net loss" standard, by increasing mitigation requirements and targeting additional plantings to riparian areas. To achieve such a target, the FCA could be amended to allow a higher "credit" assignment to reforestation or afforestation of riparian areas than reforestation or afforestation that takes place away from streambeds. Fees-in-lieu collected through FCA mitigation should also be focused on replanting riparian forest areas as well.

Require Phosphorus-Based Management that Protects Water Quality

It is widely recognized that current use of the P-Index in Maryland is not adequately protective of water quality, especially in areas of high animal concentration, notably the lower Eastern Shore. As currently utilized, Maryland's P-Site Index allows for additional phosphorus to be applied to P-saturated soils. Phosphorus-based nutrient management must protect water quality, be reasonably simple to understand and implement, and balance manure use with crop removal.

A top priority must be placed upon the current WIP recommendation to reevaluate and revise the current P-Index to incorporate the best available science and more appropriately identify the risk for phosphorus movement from cropland. Reevaluation of the threshold that currently triggers required use of the 4R parallel necessary action. In Maryland, use of soil fertility values of 150 or greater may result in greater P losses from soils with lower soil test phosphorus levels [FN9]. Maryland should also work with the other states to determine an appropriate schedule under which the region can transition to a phosphorus-based management more sustainable approach. Ultimately, the goal must be to balance manure applications with crop removal on all farms in the Bay watershed.

2. THE WIP MUST BETTER ACCOUNT FOR AND LIMIT NUTRIENT LOADS FROM GROWTH

First reduce, and then require offsets for ALL remaining incremental increases in pollution

The use of a separate "Future Allocation" for accommodating new growth is contrary to the entire TMDL and WIP goal of reducing and capping pollution. Future Allocation transfers the burden of pollution reduction to other sectors and presupposes success. A separate Future Allocation also places infill and Smart Growth at an artificial disadvantage. The concept of Future Allocation must not be included in the WIP. All urban sources, both existing and new, need to be classified in a single sector and be held accountable for the nutrient reductions needed in the watershed. Furthermore, the methods for tracking the impact of growth must be uniform across local jurisdictions and publicly accessible in a

single location coordinated by the state.

In contrast, the inclusion of offsets, with forest as the baseline, for pollution loads associated with growth, is a positive element of the draft WIP. The draft WIP appropriately lays out a concept that differentiates between growth that occurs in higher density areas with low per capita load potential, versus growth that occurs in more remote, less dense areas where per capita pollution loads are higher, provided that high-per-capita loads are offset at a ratio of at least 2:1. Criteria for designating mid-per-capita areas, consistent with the criteria for designating Priority Funding Areas, are an additional necessary element. This model, combined with the 2007 Stormwater Management Act and implementing regulations which set different stormwater management standards for redevelopment versus green field development, will strengthen the state's foundation for smart growth.

However, the proposed policy is incomplete without concerted efforts to first prevent and minimize new pollution loads associated with growth, prior to considering and awarding offsets. Combined, new development and septic systems are projected to add 2.2 million pounds of nitrogen to Maryland's portion of the watershed by 2020 - a significant portion of Maryland's total projected "gap" in nutrient reductions. In this context, the WIP's use of offsets as the rimar means to control the impacts of growth is insufficient for the following reasons:

- offsets place little responsibility on local government to modify future land use plans to benefit water quality;
- offsets are not expected to be widely available in the near term;
- over the long term, offsets may become more attractive than on-site minimization and treatment of pollution, to the detriment of nutrient reduction efficiency and local environmental quality; and
- contingencies are not delineated for situations where offsets are unavailable.

The WIP needs to limit the use of offsets by prioritizing prevention and on-site load reduction as the primary way to address proposed new loads due to growth. After minimizing new loads, on-site treatment should be instituted to the maximum extent practicable. Only after this sequence of avoidance and minimization is exhausted, should offsets be allowed to be used. In addition to this offset "sequencing", the actions outlined below (and in the prior section on buffers) should be taken to ensure that new loads from growth are efficiently and effectively controlled.

Furthermore, Maryland must outline how offsets will be handled in the interim three years while it the offset program. During this interim, Maryland must effectively manage offsets from new loads ass ith growth in an enforceable manner.

Curtail the Use of Septic Systems for Large New Development

There are more than 430,000 septic systems in Maryland, and new traditional systems are added estimated 7 percent (3.6 million pounds per year) of the total nitrogen load in Maryland comes for systems. New septic systems are, collectively, a substantial annual new source that is currently not to be offset or otherwise mitigated, and most are not even required to use Best Available Technology ir nitrogen removal. Based on current growth trends, Maryland's Department of Planning (MDP) pr it 145,000 new septic systems will be added over the next 20 years, resulting in a 34-percent increase en loads from septic systems in Maryland. [FN10]

The State must commit to limiting new development on septic systems by legislatively prohibiting f septic systems to serve new major subdivisions. Major subdivisions belong in designated growth a re they can be served by centralized sewer. Any new major subdivisions to be built outside of central r service areas must utilize centralized collection and

treatment processes that improve nitrogen removal in traditional septic systems and include routine maintenance and operation by a trained, responsible, system should be sized to serve only the proposed project, and must be consistent with the local jurisdiction's approved master plan for water and sewerage. Maryland cannot continue to allow sprawl development of septic systems for a number of reasons, not the least of which is that it equates to an end-run around nitrogen source caps on wastewater treatment plants.

Cap Septics at 2010 Loads

Non-point source loads associated with a county's septic systems must be assigned an "allocation" or a cap based on the number of systems in service in 2010. County master plans for water and sewer describe how the county intends to maintain the allocation and operate a program to offset nitrogen loading in accordance with the state's guidance on trading and offsets. By tying this allocation to local water - planning, local jurisdictions will have a meaningful tracking mechanism as well as flexibility for when implemented. By establishing this effective "cap" any new septic system installed would have the same load, just as a new wastewater facility would have to.

Require All New Septic Systems to Utilize Nitrogen-Reducing Technology

Traditional septic systems rely largely on technology that is more than 100 years old. When improvements are made to homes, modern building codes must be considered, and systems must often be "upgraded" with more advanced standards for health and safety. Why, then, should Maryland continue to allow the routine replacement of failed septic systems with antiquated technology that pollutes surface and groundwater, and threatens public and environmental health? Maryland's WIP must include new requirements that any new onsite system and all replacement septic systems must be required to include nitrogen removal technology.

3. REVISIT AGRICULTURAL OPTIONS FOR NITROGEN REDUCTIONS

Focus "Gap Closers" on Practices with Known Nitrogen Removal Efficiencies

The Draft WIP suggests that even the "accelerated" Milestone rates of implementation of agricultural practices will result in a "source sector gap" of 1.4 million pounds of nitrogen, if outlined levels of implementation of cover crops and other practices are achieved annually. The draft WIP outlines a series of options that might be utilized to address this sizeable sector gap. Unfortunately, many of these options are largely untested and have no verified nitrogen removal efficiency data associated with them. Such a large pollution reduction gap would be better addressed through more aggressive implementation of practices with reliable nitrogen reduction efficiencies. Furthermore, the draft WIP lacks sufficient details on the gap-filling strategies, so there is no way to know if, as outlined, the strategies will meaningfully reduce nutrient pollution loads from the agricultural sector.

Generally speaking, the agricultural sector strategy needs to increase rates of implementation for most of the practices currently listed at, or slightly higher than, current 2-year milestone rates. It is precisely these practices - including fencing cattle from streams, planting buffers, building poultry litter storage facilities, and employing conservation tillage - that can be easily incorporated into current funding programs and farm operations. These practices meet multiple objectives on most operations, and have been undertaken routinely within Maryland, with known costs and outcomes.

Increasing rates of implementation will not be without challenges, most notably in technical and financial assistance.

The State should address these problems now by identifying and securing additional revenues and determining how to meet the statutory requirement to fully fund Soil Conservation Districts with technical personnel. One idea to provide additional financial resources would be to model a transferrable tax credit program in Maryland after Pennsylvania's successful Resource Enhancement and Protection (REAP) Program, which can incentivize private sector investments in agricultural conservation.

In order to accelerate implementation of some of these practices, Maryland must also look to the use of flexible standards. For example, it was clearly stated at the statewide WIP public meetings that farmers generally want to fence cattle from waterways because of the dual benefits of improved stream and livestock health. In many cases, minimal fencing is necessary to complete the job (2-strand wire versus USDA-recommended 5-strand fencing) and more modest fencing can be more attractive to farmers who rent the land they farm. CBF routinely works with farmers in central Maryland to implement such fencing projects, but these exclusions currently do not "count" toward nutrient reductions in the Bay model. Use of more flexible standards, only where appropriate, can be a cost-effective way of stretching limited cost-share funding and increasing implementation rates simultaneously.

Use of Innovation

Innovative approaches to meeting the challenges of nutrient reduction in our agricultural sector are ingredient of a successful WIP. One such innovative approach that is not currently included in the i is the conversion of marginal crop land to permanent vegetative cover. The benefits of permanent vel cover, including hay, pasture, and specialty crops such as orchard trees, vineyards, or perennial gra energy production, can not be over-stated. Covers such as hay or pasture grasses, require much lower inputs, and in the case of hay, could be highly valuable to Maryland's growing equine industry.

This kind of permanent cover can be undertaken as a whole-farm transition to a different farm syst, an opportunity for diversification on existing grain land, with hay or grasses grown on marginal land. supports the use of funds from the current cover crop program to support these kinds of transitions ient cover, as a related practice that has longer-term benefits for a farm.

[FN1] Maryland's Chesapeake Bay Tributary Strategy Statewide Implementation Plan.

http://dnr.maryland.gov/bay/tribstrat/implementation_plan.html

[FN2] http://www.mde.maryland.gov/assets/document/BRF-2010LegislativeUpdate-Draft_pdf

[FN3] World Resources Institute. 2010. How Nutrient Trading Could Help Restore the Chesapeake Bay.

<http://www.wri.org/publication/how-nutrient-trading-could-help-restore-the-chesapeake-bay>

[FN4] USDA October 2010. Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake

[FN5] http://www.mda.state.md.us/resource_conservation/financial_assistance/cover_crop/index.php

[FN6] http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_MD.pdf

[FN7] <http://www.baystat.maryland.gov/2yearplan.html>

[FN8] Sweeney, B.W., T.L . Bott, J.K. Jackson, L.A. Kaplan, J.D. Newbold, L.J . Standley, W.L . Hession, and R.J . Horwitz. rian deforestation, stream narrowing, and loss of stream ecosystem services. Proceedings of the National Academy of Science 32-14137.

[FN9] K. Staver, personal communication.

[FN10] <http://planning.maryland.gov/OurWork/smartGrowthIndicators.shtml>

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0739.001.001

Author Name: Holland Freddy

Organization: De-Chem LLC

We, the undersigned poultry producers, would like to take this opportunity to encourage EPA and the individual states affected by the Chesapeake Bay TMDL to consider amending the planned activity item in the Maryland Watershed Implementation Plan: Summary Table of Actions described as Poultry Litter Treatment We respectfully request that all commercially available Litter Amendments be accepted and included as BMP's for mitigating ammonia and Phosphorus from Poultry farms.

These amendments include: Klasp™ PLT™ and Poultry Guard™

These amendments have been proven to be effective and have been accepted by NRCS for EQIP cost share by several of the states affected by the TMDL. Scientific data is readily available and we, as producers, have utilized these amendments and found them to be effective at reducing ambient ammonia release and binding phosphorus in the litter.

Maryland: Conservation Practice Fact Sheet Recommendations for Poultry Acidifying Litter Amendments I[Code 591] - AMENDMENTS FOR THE TREATMENT OF AGRICULTURAL WASTE, October 2008.

Virginia: Fact Sheet - Conservation Practice Standard Amendments for Treatment of Agricultural Waste (Code 591)
Virginia Conservation Practice Standard 591 Amendments for Treatment of Agricultural Waste.

DELAWARE CONSERVATION PRACTICE STANDARD Amendments for Treatment of Agricultural Waste (Code 591).

Additionally, individual circumstances dictate we have the ability to use all of the tools available so that we may do our part in reducing agriculture's impact on the bay.

We strongly encourage you to add, include, or otherwise amend the Chesapeake Bay and state TMDL's so we may utilize these proven effective amendments.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0745.001.001

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years Maryland has worked to clean our waters but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean-up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0769.001.002

Author Name: Campaign Mass

Organization: Environment Maryland Research & Policy Center

Dear Gov. O'Malley,

Thank you for your leadership in this unprecedented opportunity for clean water. Your draft clean-up plan was promising, and now I urge you to submit a strong final plan on Nov. 29th.

The final plan should include these strong proposals from the draft: revising the question of when farmers should put manure on their land, updating more waste water treatment plants, retrofitting up to half of covered surfaces in the largest counties, and requiring upgrades of stream-side septic systems throughout the state.

The plan should include more mandatory measures rather than continuing our over-reliance on the voluntary approach. For instance, the plan should require cover crops on fields where manure is applied, to help manage the 600 million pounds of chicken manure created annually in Maryland.

The plan should require enforceable limits on all sources of pollution, and it should provide details on how the state will fund, implement, and enforce every proposal.

Response

See response to Comment No. 0034-cp.001.001

20.6 - DISTRICT OF COLUMBIA

Comment ID 0185.1.001.015

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

District of Columbia

Overall

The District of Columbia is unique among Bay watershed jurisdictions because nearly all of its sources of pollutants are point sources and covered by National Pollutant Discharge Elimination System (NPDES) permits, administered by EPA Region 3. Nonpoint sources of pollutants contribute very little to water impairment. For transparency of information, the District of Columbia discloses an average amount of information. For strength of program, the Bay TMDL allocations should be written into the NPDES permits for the District's point sources.

The District's draft WIP would lower nitrogen and phosphorus discharges to a level that is 5 percent below the respective target allocations. However, the draft WIP still permits sediment discharges to be 26 percent more than allowed by the target allocation.[FN 10]

In the final Phase I WIP, the District should discuss in greater detail its pending stormwater permit, including the programs and elements that will reduce stormwater runoff and nutrient and sediment discharge.

NPDES Permitting

The draft WIP indicates that all facilities that require NPDES permits have them or are in the process of renewal.[FN 11] EPA Region 3 is the permitting authority for the District. DC Water, a semiautonomous regional entity, holds a combined permit for the Blue Plains Wastewater Treatment Facility and the District's combined sewer system. Upgrades to these systems are specified as permit conditions or as a result of consent decrees, and the draft WIP lays out a timeline for upgrades and the resulting pollutant reductions. If implemented as planned, the District's nitrogen and phosphorous targets will be met.

Enforcement of NPDES Permits

The draft WIP indicates that both major and minor facilities are inspected on an annual basis. EPA Region 3 has enforcement authority to ensure compliance with the permit conditions. However, the draft WIP does not disclose specific information related to enforcement and compliance efforts. In the final WIP, the District should disclose this information to substantiate its claims and should also explain its procedures for ensuring compliance.

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

This section does not apply to the District of Columbia, which will meet its Bay TMDL allocations through point sources.

Contingencies

Again, this section does not apply to the District because most of the pollutant sources are point sources that are subject to NPDES permits and mandatory consent decrees and other federal regulations with specific deadlines for compliance.

Concentrated Animal Feeding Operations

This section does not apply because the District does not have any CAFOs.

Stormwater

The District's 2004 MS4 permit expired in August 2009 but has been administratively extended, pending finalizing of the 2010 MS4 permit. The 2004 permit is missing numeric effluent limitations and has been subject to litigation, resulting in upgrades to the District's stormwater management plan and upgrades in the 2010 permit. The WIP specifically refrains from discussing the draft 2010 permit because it has not been issued. Because the District is relying solely on this permit to achieve its reductions for the stormwater section, the final WIP should discuss the permit in greater detail, addressing the legal tools, staffing resources, and financial resources needed to require the use of low-impact development and green infrastructure practices and estimates of pollutant reductions from using these practices.

Air Deposition

The District does not attribute any of its nitrogen loading to air deposition. Thus the draft WIP does not include this discussion.

[FN 10] U.S. E.P.A., "Summary: EPA Evaluation of District of Columbia Draft Watershed Implementation Plan" (Sept. 22, 2010) (on file with Yee Huang).

[FN 11] The draft WIP notes that the "District is not aware of additional sources that require (but lack) NPDES permits."

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0254.1.001.008

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

C. The reserve for growth should not be listed as separate WLAs in the Bay TMDL.

Table 1 in the Draft WIP distributed a portion of the WLAs assigned to Outfall 002 to a reserve for growth (see draft WIP, page 18, Table 4). Because this reserve could be construed to restrict DC Water's ability to use all of the WLAs distributed to Outfall 002 to serve the District's current flows to Blue Plains, DC Water has asked DDOE to include in the final WIP the WLAs now distributed to the reserve in one total distribution to Outfall 002. The District is already using all of its capacity in Blue Plains. Consequently, the District's current flows would have to be restricted if the approximately 13 MOD of capacity reflected in the reserve for growth in Table 4 of the Draft WIP was subtracted from the District's capacity allocation. Therefore, it is important to DC Water's ability to serve the District's current flows to Blue Plains that the Bay TMDL include the WLAs for Outfall 002 in one total distribution to Outfall 002. In other words, the final TMDL should not include a separate distribution reserved for growth.

The IMA flow allocations listed in Section B above for the Blue Plains user jurisdictions already include capacity for growth and under the provisions of the IMA, any additional allocation for the District would be obtained by off-loading flow from a Maryland or Virginia user because there are no plans to expand Blue Plains beyond 370 mgd IMA capacity.

Response

The Final WIP and input deck allow for a reserve to accommodate potential growth and/or additional flows that the District may contribute to Blue Plains. The WIP does specify that DC would negotiate with other partner under the Inter-jurisdictional Municipal Agreement (IMA) in the event additional flows are needed to accommodate growth at Blue Plains.

Comment ID 0254.1.001.009

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

C. The reserve for growth should not be listed as separate WLAs in the Bay TMDL.

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The IMA flow allocations listed in Section B above for the Blue Plains user jurisdictions already include capacity for growth and under the provisions of the IMA, any additional allocation for the District would be obtained by off-loading

flow from a Maryland or Virginia user because there are no plans to expand Blue Plains beyond 370 mgd IMA capacity.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0254.1.001.010

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

E. Table 22 in the Draft WIP should be revised to conform to Table 4 in the ("mal WIP.

The allocation summary in Table 22 on page 71 of the Draft WIP is inconsistent with the detailed allocations in Table 4 on page 18 of the Draft WIP. Therefore, DC Water has asked DDOE to revise Table 22 in the final WIP to conform to Table 4.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.020

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The text below has been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Comments from the Chesapeake Bay Foundation on the District of Columbia's Draft Watershed Implementation Plan November 8, 2010

On behalf of the Chesapeake Bay Foundation's (CBF) more than 200,000 members please this letter as formal comment on Draft Chesapeake Bay TMDL Watershed Implementation District of Columbia Department of the Environment, September 1, 2010. Also, we incorpc by reference the comments submitted by CBF, Boesch, et al., and the Choose Clean Water Coalition to Administrator Jackson on November 8, 2010, Docket no. EPA-R03-OW-2010-0736.

We very much appreciate the dedication of the many District agency staff that contributed t draft Watershed Implementation Plan (WIP). We also appreciate and acknowledge efforts currently underway to upgrade the Blue Plains

Wastewater Treatment Plant and to implement Long-term Control Plan that will reduce pollution associated with combined sewer overflow. Unfortunately, the draft WIP falls short in achieving the necessary load allocations for sediment called for in the draft Chesapeake Bay Total Maximum Daily Load (TMDL) and providing reasonable assurance of achieving pollution reductions from urban stormwater runoff.

As you know, the process of developing the Bay-wide TMDL actually began over a decade with a series of federal judicial consent decrees and settlement agreements over impaired water listings for many watershed states. See *American Canoe v. EPA*, 54 F. Supp. 2d 621 (E.D. 1999); *Kingman Park Civic Ass'n v EPA*, 84 F.Supp. 2d 1, 2 (D.D.C. 1999). On June 28, 2002 the governors of Virginia, Maryland, and Pennsylvania, the chair of the Chesapeake Bay Commission, and the Mayor of the District of Columbia responded to the various decrees and agreements by signing, with the EPA Administrator, Carol Browner, the Chesapeake 2000 agreement which, among other things, committed to reduce nitrogen, phosphorus, and sediment sufficiently to remove the Bay and its tidal tributaries from the impaired waters lists by 2010.

In December 2003, the EPA, the District of Columbia, and the other Bay jurisdictions agreed to the nitrogen, phosphorus, and sediment allocations that became the basis for "tributary strategies," designed to remove the Bay and its tidal tributaries from the impaired waters list by 2010. The District of Columbia issued its own tributary strategy in 2004. [FN1] Unfortunately, the Bay and many of its tidal waters were not de-listed, triggering the need to develop the Bay TMDL - a process in which the District has been a full and cooperative participant.

To restore water quality in the Anacostia and Potomac Rivers, and, ultimately, the Chesapeake Bay, we strongly encourage the District to address the deficiencies EPA identified in the District's draft WIP [FN2] and provide the necessary details, consistent with EPA's correspondence to the Principals' Staff Committee of September 11, 2008, November 4, 2009, and April 2, 2010.

The District's responsibility to develop an adequate WIP that meets the Bay TMDL allocations and provides reasonable assurances of required pollution reductions is founded on the firm requirements of federal law.

The Clean Water Act (CWA or Act) [FN3] provides the basis on which the draft WIP must be evaluated. Enacted in 1972 to compel the restoration of the nation's waters, [FN4] the CWA requires the states to establish water quality standards and to take the necessary actions, including those by upstream states, to ensure that the waters meet those standards, thereby achieving CWA's goals. [FN5] If a state does not promulgate water quality standards or falls short of CWA requirements in doing so, EPA will set the standards for the state. [FN6] The CWA prescribes the use of technology-based effluent limitations for most point sources discharges [FN7] and, if those measures do not achieve water quality standards, the Act requires the use of water quality-based controls under Section 303(d). [FN8]

The draft WIP forms part of the CWA's § 303(d) TMDL program, which requires identification and listing of all impaired water bodies within a state's borders. For each listed segment, Section 303 and implementing regulations require the state to establish a TMDL for specified pollutants. [FN9] A TMDL is the maximum amount of a pollutant -- from background, point and nonpoint sources, together with a margin of safety -- that the water body can receive and still attain water quality standards. [FN10] When triggered by CWA requirements, the states and EPA are required to establish a TMDL, as courts have recognized. [FN11]

Once a TMDL is established and approved by EPA, the affected states must adequately implement it to ensure water

quality goals are attained. See *Sierra Club v Meiburg*, 296 F.3d 1021 (11th Cir. 2002). Thus, CWA § 303(e)(1) requires each state to have a continuing planning process that results in implementation plans for all navigable waters within state boundaries, which include effluent limitations and compliance schedules as required, § 303(d) TMDLs for pollutants, and "adequate implementation, including schedules of compliance, for revised or new water quality standards," including those of downstream states. [FN12] Resort to a TMDL is the CWA's "backup" strategy for achieving water quality standards; it is invoked when point s permits and best management practices (BMPs) for non-point sources (NPS) have not succeeded. [FN13] Accordingly, EPA may only approve a state-submitted implementation plan t provides assurances it will succeed in "implement [ing] applicable water quality standards." [FN14]

What constitutes reasonable assurances will vary depending on the water body and the poll sources at issue. [FN15] Most, if not all, of the pollution loads coming from the District fall under National Pollutant Discharge Elimination System permit which provides a foundation for providing reasonable assurance. The District, however, must ensure the final WIP achieve necessary pollution reductions and sets a timeline for achieving them by the 2017 and 2025 implementation deadlines.

[FN1] The District of Columbia 2004 Nutrient and Sediment Tributary Strategy. Prepared by the District of Columbia Department of Health. June 2004.

[FN2] http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/WIPEVALUATIONS/PortfolioOfDraftWIPs.pdf

[FN3] 33 U.S.C. §§ 1251, et seq.

[FN4] 33 U.S.C. §§ 1251(a)(2) and 1313(c)(1) (CWA goal is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters").

[FN5] 33 U.S.C. §§ 1251(a), 1312, 1313; 40 C.F.R. §§ 122.44, 130.3, 131.2 .

[FN6] 33 U.S.C. §§ 1303(b), (c)(3)-(4).

[FN7] 33 U.S.C. § 1311(b)(1).

[FN8] 33 U.S.C. § 1313(d).

[FN9] 33 U.S.C. § 1313(d)(1)(C). Development of a TMDL is mandatory when triggered by the CWA. See *Natural Resources Defense Council v. Fox*, 909 F. Supp. 153 (S.D.N.Y. 1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in Section 303); *Alaska Center for the Environment v. Reilly*, 762 F. Supp. 1422 (W.D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs).

[FN10] See 33 U.S.C. § 1313 (d)(1)(C). Effluent limits in NPDES permits must be consistent with "assumptions and requirements" of any "available waste load allocation" in an approved TMDL. 40 CFR § 122.44(d)(1)(vii)(B). See e.g., *Pronsolino v. Nastri*, 291 F. 3d 1123 (9th Cir. 2002).

[FN11] See e.g., *Scott v. Hammond*, 741 F. 2d 992 (7th, Cir. 1984) (lengthy inaction on the part of a state can constitute a "constructive submittal" of an inadequate TMDL, thereby transferring the duty to prepare to EPA); *Natural Resources Defense Council v. Fox*, 909 F. Supp. 153 (S.D.N.Y.1995) (EPA must establish TMDLs based on Congress's use of the word "shall" in CWA § 303); *Sierra Club v. Hankinson*, 939 F. Supp. 872, 873 (N.D. Ga. 1996) (To attain CWA goals, EPA must ensure that TMDLs are implemented). ; *Alaska Center for the Environment v. Reilly*, 762 F. Supp. 1422 (W.D. Wa. 1991) (EPA has a mandatory duty to promulgate TMDLs)

[FN12] See 33 U.S.C. §§ 1251(a), 1313(e)(1) and 1313(e)(3)(C),(F); 40 C.F.R. Part 130.6(b),(c) (TMDLs must be included in Water Quality Management Plans used to direct implementation); *Environmental Defense Fund v Costle*, 657 F.2d 275 (D.C . Cir. 1981).

[FN13] See 33 U.S.C. § 1313(d)(1)(A); 40 C.F.R. 130.7(b)(1).

[FN14] See 33 U.S.C. § 1313(d)(2).

[FN15] See Guidelines for Water Quality-Based Decisions: The TMDL Process (EPA Office of Water Regulation Standards)("1991 Guidance").

Response

See response to Comment No. 0034-cp.001.001

20.7 - DELAWARE

Comment ID 0185.1.001.014

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

For the transparency of information evaluation, Delaware's draft WIP is well-organized and uses a consistent format for each sector that makes finding information easy. Delaware touches on each of the required elements but does not explicitly disclose all the information listed in EPA's guidance. For the strength of program evaluation, Delaware does not provide sufficient detail to verify its claims or provide assurance that its allocations will be achieved.

The draft WIP would lower sediment pollution to a level that is 20 percent below the target allocation. However, the draft WIP still permits nitrogen and phosphorous discharges to be 17 and 8 percent, respectively, more than the level allowed by the target allocation. [FN 6]

In the final Phase I WIP, Delaware should provide more detailed information on its NPDES permitting, enforcement, and compliance programs and make stronger commitments to implementing pollutant control measures in all sectors to achieve the Bay TMDL.

NPDES Permitting

For nearly every sector, the draft WIP states that 100 percent of facilities subject to NPDES permits have those permits but does not provide the specific number of facilities. This information also does not reveal which of these facilities have up-to-date permits and which have expired or administratively continued permits. The draft WIP does not contain any schedules or commitments for updating expired permits, nor does it disclose when all permits will be made consistent with the Bay TMDL.

In the final WIP, Delaware should not only point to programmatic needs but also to personnel and financial gaps and provide a plan for filling those gaps. For example, the wastewater section notes that current staff levels are "insufficient to keep up with permit issuance demands" but does not specify what additional staff are needed and how the state may acquire funds for new staff.

Enforcement of NPDES Permits

The draft WIP contains some information regarding inspections but not enough to determine whether Delaware is operating an effective, deterrence-based enforcement program in each sector. For example, the WIP states that "all of the major and half of the minor permitted wastewater facilities are inspected/audited on an annual basis." The WIP also states that compliance and participation rates are 100 percent for wastewater treatment plants and "[n]o additional regulatory or enforcement authorities are needed to meet these rates." However, the WIP fails to provide information to substantiate these claims, which if true are remarkable. Without providing additional details regarding the number of onsite inspections versus paperwork audits or the inspection protocol, assessing the enforcement program is difficult.

In the final WIP, Delaware should include complete enforcement data, including: the number of physical, onsite inspections per sector; the number of violations and penalty actions and the amount of penalties assessed during the past year; a description of the enforcement activities by local governments with delegated authority; and a detailed picture of enforcement resources. Collectively this information would allow a better understanding of how Delaware's NPDES permit enforcement program functions.

Monitoring and Verifying Voluntary Practices by Nonpoint Sources

The draft WIP provides some information regarding specific procedures and resources for assuring participation by unregulated nonpoint sources in actions to reduce pollutant discharges. The draft WIP also lists programs and their past and future funding levels. Programs such as the Agricultural Management Assistance Program and the Wetland Reserve Program are largely voluntary and provide cost-share assistance. These programs have very limited resources: 0.2 and 3.5 technical and staff positions, respectively, and annual budgets of \$60,000 and \$215,000. Moreover, the overall list of voluntary programs does not identify gaps in resources or how these gaps may be filled.

In the final WIP, Delaware should provide greater detail about actual participation rates and the method to ensure that pollutant control practices are in place, maintained, and functional. Delaware should also identify specific programmatic gaps and how they will be filled.

Contingencies

Compared to other states' submissions, the Delaware draft WIP contains fairly detailed contingencies. For example, wastewater facilities may be required to upgrade to higher levels of nutrient removal, up to the best available technology. However, the weakness in these contingencies is the lack of commitment to implement them; the draft WIP does not specify a timeline or cite resources for implementing these contingencies.

In the final WIP, Delaware should establish a timeline for identifying failures of primary controls and implementing contingencies. For example, Delaware could commit to periodic checks of the primary controls that coincide with the two-year milestones.

Concentrated Animal Feeding Operations

According to the draft WIP, Delaware's CAFO program was updated in Fall 2010 to be consistent with the new federal regulations. However, the draft WIP did not indicate if and when the relevant CAFO permits will be issued or updated to

be consistent with both the Bay TMDL and the updated regulations. Delaware should also provide more information regarding its CAFO compliance and enforcement program, including inspection frequency, compliance rates, and enforcement activities and penalties.

Stormwater

The draft WIP cites high permitting and inspection rates for portions of Delaware's stormwater program. However, the WIP fails to provide sufficient information to verify these rates, and EPA has expressed its skepticism of these rates.[FN 7] The WIP does not disclose the extent of a local government's delegated authority to conduct inspections, which is important information because stormwater permits are often administered by local authorities.[FN 8] The WIP identifies the need for more resources to administer an effective stormwater program but fails to specify quantified numbers or how Delaware will fill these needs.

In the final WIP, Delaware should provide more information to substantiate the high levels of permitting and should further specify needs to ensure that its stormwater program will meet the requirements of the Bay TMDL.

Air Deposition

Delaware's section on air does not discuss the state authorities available to control air emissions. However, the draft WIP states that there is "little left" in Delaware's regulatory arsenal to further reduce nitrogen pollution from regulated sources and that, even if more stringent controls were identified, Delaware would see little impact due to the location of sources and climatic patterns.[FN 9] As a result, Delaware would like to see EPA tighten federal rules under the Clean Air Act to reduce the air pollutants that reach the state from surrounding states. Because Delaware does not disclose information about its state air program, its claim that there is "little left" is difficult to evaluate. In the final WIP, Delaware should disclose more information that would allow a better evaluation of its program.

[FN 6] U.S. E.P.A., "Summary of Delaware Draft Watershed Implementation Plan" (Sept. 22, 2010) (on file with Yee Huang) [hereinafter "EPA Summary of Delaware"].

[FN 7] Id. In EPA's preliminary evaluation of Delaware's draft WIP, it "questions that 100 percent of construction sites are in compliance."

[FN 8] Del. Code tit. 7, § 4001.

[FN 9] Delaware Chesapeake Interagency Workgroup, Delaware's Phase I Chesapeake Bay Watershed Implementation Plan 133 (September 1, 2010), available at

http://www.wr.dnrec.delaware.gov/Information/WatershedInfo/Documents/Chesapeake%20Phase%201%20WIP/DE_DRAFT_Phase1_WIP_withAppendices_090110a.pdf.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0732.001.016

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The text below has been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Comments from the Chesapeake Bay Foundation on Delaware's Draft Watershed Implementation Plan
October 29, 2010

First, we would like to sincerely commend and thank Delaware for being a willing and cooperative partner in the restoration of the Chesapeake Bay and its tidal rivers. Most notably, during the last several years of technical work on the Chesapeake Bay Total Maximum Daily Load (TMDL) and associated implementation plan, Delaware has consistently expressed a willingness to do its share. In a press release, dated May 29, 2009, Governor Markel and agency heads affirmed their commitment to accelerate cleanup of the Chesapeake Bay to achieve full implementation by 2025 and to increase government accountability. That said, we agree with the Environmental Protection Agency's (EPA) September 24, 2010, assessment of Delaware's draft Watershed Implementation Plan (WIP) and strongly encourage the state to address those identified deficiencies in their final plan.

Although Delaware represents only a small portion of the Bay watershed, it contains the headwaters of many eastern shore rivers and these areas have a relatively high impact on water quality in the Bay. Many of these rivers and streams are themselves impaired, so progress to restore the bay and its tributaries will also lead to improvements to Delaware's waterways. In fact, the state's integrated report suggests that TMDLs will be developed for many of these waterways by 2010. ([http://www.wr.dnrec .delaware.gov/Information/OtherInfo/Documents/2008%20Combined%20Watershed%20Report.pdf](http://www.wr.dnrec.delaware.gov/Information/OtherInfo/Documents/2008%20Combined%20Watershed%20Report.pdf)).

In addition, as indicated in Appendix F of Delaware's draft WIP, there are significant economic benefits associated with this region. Preliminary estimates indicate goods and services in the Delaware portion of the Chesapeake Bay watershed contribute over \$1 billion in annual economic activity, is directly/indirectly responsible for over 47,000 jobs, has an annual ecosystem value of natural goods and services of at least \$3.1 billion, and water supplies are worth at least \$50 million for treated drinking water and \$18 million for irrigation. Hence, protection and restoration of water quality in this area will serve to increase these economic benefits.

As you know, the process of developing the Bay-wide TMDL actually began over a decade ago with a series of federal judicial consent decrees and settlement agreements over impaired water listings for many watershed states, including Delaware. (*American Littoral Society v. EPA*, No . 96-330 (D. DE)). On June 28, 2000, the governors of Virginia, Maryland, and Pennsylvania, the chair of the Chesapeake Bay Commission, and the Mayor of the District of Columbia responded to the various decrees and agreements by signing, with the EPA Administrator, Carol Browner, the Chesapeake 2000 Agreement which, among other things, committed to reduce nitrogen, phosphorus, and sediment sufficiently to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. In the fall of that same year, Governor Tom Carper of Delaware signed a formal agreement to work with the other jurisdictions to "achieve the nutrient and sediment reduction targets . . .to achieve the goals o a clean Chesapeake Bay by 2010."

In December 2003, the EPA, Delaware and the other Bay jurisdictions agreed to the nitroge phosphorus and sediment allocations that became the basis for "tributary strategies," designed to remove the Bay and its tidal tributaries from the impaired waters lists by 2010. The failure to achieve that goal triggered the need to develop the Bay TMDL - a process

in which Delaware has been a full and cooperative participant.

Consistent with EPA's letters to the Principals' Staff Committee of September 11, 2008, November 4, 2009, and April 2, 2010, we strongly encourage the state to provide the necessary details in their WIP for how they will achieve the necessary reductions, particularly from agriculture, which contributes the vast majority of Delaware's sediment, phosphorus and nitrogen loads to the Bay. The recent draft report by the U.S. Department of Agriculture (USDA) highlights that although progress has been made on reducing sediment, nutrient, and pesticide losses from farm fields through conservation practice implementation in the Chesapeake Bay region, a significant amount of conservation treatment remains to be done to reduce nonpoint agricultural sources of pollution. (USDA October 2010. Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Region) Specifically, the report indicates that significant improvement is still needed in nutrient management (proper rate, form, timing, and method of application) throughout the region. About 81 percent of the cultivated cropland acres require additional nutrient management to reduce the loss of nitrogen or phosphorus from fields. The most critical conservation concern identified in the report is loss of nitrogen through subsurface loss pathways, most of which eventually contribute to surface water loads. These conclusions affirm EPA's recommendations that Delaware should consider revising their nutrient management plan (NMP) regulations and identify the resources necessary to increase their NMP and concentrated animal feeding operation inspection programs to ensure compliance with state regulations. See also Water Quality in the Delmarva Peninsula, 1999-2001, US Circular 1228.

We also encourage the state to improve its WIP with respect to addressing loads from new septic systems. According to the draft WIP, loads from this source are expected to increase however, there are no specifics about how these loads will be tracked and offset. We also concur with EPA's comments regarding the need for more specifics about how reductions from existing urban areas will be achieved.

We sincerely hope that the final WIP submitted to EPA achieves the TMDL allocations for nitrogen, phosphorus, and sediment and provides sufficient "reasonable assurance" so as to avoid the need for EPA to invoke the "backstop" provisions.

Response

See response to Comment No. 0034-cp.001.001

20.8 - WIP EVALUATION METHODOLOGY

Comment ID 0126.1.001.020

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Nitrogen, Phosphorus and Sediment are the impairments of the waterways that this plan is seeking to control. Yet the impairments of our local watersheds are based on the measurement of E. coli and benthic microinvertebrates. Direct measurement of the targeted goals would seem to be a more accurate method of evaluating the results of the planned

implementation practices.

Response

The Bay TMDL only addresses the restoration of aquatic life uses for the Bay and its tributaries via nitrogen, phosphorus and sediment pollutants. Sediment itself can degrade water clarity in the Bay and can contain other pollutants as well. For example, E. coli often clings to sediment. By reducing sediment there will be reductions in phosphorus deliveries to the Bay and possibly other pollutants such as E. coli. However, EPA is not providing allocations for E. coli or other additional pollutants in this TMDL.

Comment ID 0145.1.001.013

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Not surprisingly, after the draft WIPs were submitted, the EPA stated that many of them were significantly flawed, in the agency's view. If, as the EPA asserts, many of the draft WIPs are significantly flawed, this raises serious questions about the efficacy and viability of WIPs as tools to fulfill the TMDL.

Response

The WIP submitted by each jurisdiction are part of the accountability framework outlined in the Chesapeake Bay Protection and Restoration Executive Order 13508. EPA reviewed the WIPs considering the accountability framework that has been developed for the Chesapeake Bay TMDL, and imposed backstop actions in the draft TMDL for each jurisdiction because they did not submit draft Phase I WIPs that met EPA's expectations outlined in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction or meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. EPA believes that the established accountability framework for the WIPs will ensure that the TMDL is implemented. Further information on the accountability framework can be found in Chapter 7 of the TMDL report.

In addition, the final state WIPs have provide to be much improved from the drafts. This condiered, EPA has chosen to reduce or remove the backstop allocations. EPAs final decision on these backstop allocations can be found in section 6 of the TMDL report.

Comment ID 0201.1.001.012

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

On page 8-8, EPA found the stormwater section of the PA WIP to meet few expectations. PennDOT disagrees with this conclusion. PADEP just revised its regulations that administer the NPDES stormwater program. The revisions include standards for volume control, rate control, and water quality. The revisions also include a retrofit element by requiring

that 20% of existing impervious surfaces for redevelopment projects be considered meadow when evaluating the volume standards. It is PennDOT's understanding that EPA reviewed these revisions to ensure consistency with the NPDES program and approved these revisions. In reviewing the PA WIP, EPA did not give sufficient credit to these existing regulatory practices.

Response

The revised PA Chapter 102 regulations were reviewed and commented upon by EPA. However, they were never formally approved by the Agency. At the time of the submittal of the draft WIP, the regulations referred to in the above comment did not exist—they did not become effective until November 19, 2010; therefore Pennsylvania, by their own admission, chose not to elaborate or include in their WIP document the specific requirements that the new regulation would necessitate. EPA requested that PADEP provide greater detail in their final Phase I WIP to explain the requirements of the revised Chapter 102 to provide greater reasonable assurance that proposed reductions can be achieved. PADEP included this in their final Phase I WIP. The evaluation of the final Phase I WIPs for each jurisdiction can be found in Section 8 of the final TMDL report.

Comment ID 0228.1.001.001

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

I sincerely appreciate the opportunity to provide comments to you regarding the referenced draft WIP. I have had the honor of serving as a member of the Stakeholder Advisory Group (SAG) you developed for providing input to you and your staff during the development of the draft WIP. It is unfortunate that the WIP development process was condensed into such a short period of time due to EPA's decision to complete this WIP process by the end of the year despite their ±6 month delay in delivering the load allocations to the Commonwealth.

The result is that the public has been done a disservice because there was not sufficient time for a WIP to be developed that is cost effective and that equitably shares the costs of cleaning up the Bay across society, yet these two criteria were the foundation of agreement by the Commonwealth of Virginia's SAG.

Response

See response to Comment No. 0067.1.001.020

Comment ID 0231.1.001.008

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

UOSA agrees with Virginia that the proposed expanded Chesapeake Bay Watershed Nutrient Credit Exchange Program as presented in its Draft Phase I WIP would result in meeting pollution reductions and cap load allocations cost-effectively and as soon as possible. Virginia's demonstrated successful track record implementing the current Nutrient Credit Exchange Program should be considered reasonable assurance in EPA's evaluation of the VA WIP.

Response

See response to Comment No. 0228.1.001.022

Comment ID 0231.1.001.010

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

Given Virginia's good track record of achieving nonpoint reductions, we disagree with EPA's initial view that Virginia did not provide sufficient reasonable assurance on nonpoint loads reduction.

Response

See response to Comment No. 0067.1.001.009

Comment ID 0267.1.001.019

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

With reference to AEM in its evaluation of New York's Phase 1 WIP, however, EPA takes the view that "high implementation rates [are] unlikely if [the state] relies on voluntary programs." [FN 8] This statement is clearly inconsistent with EPA's acknowledgement that New York's CAFO and AEM programs cover 95% of the dairy farms in the New York portion of the Chesapeake Bay watershed and that more than 12,000 farms statewide are involved in AEM. EPA incorrectly assumes that AEM participation is entirely voluntary. AEM is not entirely voluntary. In fact, permits for CAFO operations require Comprehensive Nutrient Management Plans (CNMPs), and the CNMP training and certification program is managed through AEM. [FN 9]

[FN 8] U.S. ENVTL. PROTECTION AGENCY, SUMMARY: EPA EVALUATION OF NEW YORK DRAFT WATERSHED IMPLEMENTATION PLAN 1 (Sep. 24, 2010), http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/WIPEVALUATIONS/NYWIPEvaluationSummary_9222010Final.pdf.

[FN 9] "CNMPs are the foundation for the New York State Department of Environmental Conservation's environmental

regulatory program to control potential water pollution from CAFOs under State General Permit GP-04-04, and are also a requirement for farms seeking federal or state cost-sharing to construct a manure storage structures." New York State Soil & Water Conservation Committee, Comprehensive Nutrient Management Plan (CNMP) Guidance for Planners, <http://www.agmkt.state.ny.us/SoilWater/aem/cnmp.html> (last visited Nov. 4, 2010).

Response

EPA's comment on NY's AEM program reflects the need for NY to demonstrate that there is reasonable assurance that BMPs are being implemented and maintained on these operations. Participation in the AEM program does not necessarily mean implementation of BMPs, which are necessary to meet the TMDL nutrient reduction goals. NY's CAFO program requires oversight by NYDEC including inspections and annual reporting on compliance with the CNMP and the implementation and maintenance of BMPs by the farm owner or operator. State programs that do not include compliance assurance and enforcement programs are considered voluntary.

Comment ID 0380.1.001.003

Author Name: Lyskava Paul

Organization: Pennsylvania Forest Products Association

2. State Flexibility - States must be given as much flexibility as possible within their WIP to meet the TMDL. Specifically, Pennsylvania should only be required to meet its gross load allocation, without also meeting specific geographic and sector load allocations. The situation outlined in our first comment provides sufficient evidence for why this flexibility is necessary.

Response

It was EPA's intention to provide such flexibility to the upland states including Pennsylvania. However, since the draft and final plan did not fully meet EPA's expectations, EPA has included sector and individual allocations to sources. However, it is EPA's professional opinion that adequate flexibility still exists in that states can modify their WIPs when appropriate and EPA may modify the TMDL in 2011 and 2017 if necessary.

Comment ID 0418.1.001.012

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

As a result of the notable failure of most draft WIPs to address shortcomings in their 2 Year Milestones, in evaluating the revised Phase I WIPS, EPA must demand that Bay States identify specific measures and commit to accelerate progress toward meeting these goals.

Response

See response to Comment No. 0262-cp.001.002

20.9 - GENERAL/MISCELLANEOUS

Comment ID 0035-cp.001.002

Author Name: Bowman Daniel

Organization:

I will only make one direct comment that might help the Bay. Ban the purchase of soil fertilizers by private citizens and the use of commercial fertilizers by services on privately owned land. Maybe make some concession for golf courses but require a significant reduction. The only group that should be allowed to use fertilizers are farmers and those need to have strict controls with monitoring of outflows.

Response

EPA appreciates your comment on implementation strategies that could be used to meet the Chesapeake Bay TMDL allocations. Each jurisdiction is responsible for developing a Watershed Implementation Plan (WIP) and identifying regulations, Best Management Practices (BMPs) or other implementation strategies within its WIP for meeting the pollution allocations under the TMDL. The WIP helps ensure implementation of the Chesapeake Bay TMDL but is not an approvable part of the TMDL; therefore, EPA cannot require jurisdictions to implement practices that are outside of EPA's regulatory authority in order to meet allocations under the TMDL. EPA currently does not have the authority to regulate the purchase or use of soil fertilizers by private citizens, golf courses, or farmers. Such regulations would need to be promulgated by the respective jurisdiction.

Comment ID 0039-cp.001.001

Author Name: Austin John

Organization:

I am very disappointed in the proposed plan, as it fails to achieve the TMDLs.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0044.1.001.004

Author Name: Blackwood Lorene

Organization: Virginia Green Industry Council

The green industry provides the products for the natural filtration: the use of plants as ground cover, trees, rain gardens, bioswales, green roofs and similar "green infrastructure" helps to manage stormwater runoff, and needs to be utilized in large and small solutions.

Response

Please refer to response to comment 0228.1.001.002. EPA's evaluation of the final WIP can be found in Section 8 of the final TMDL report.

Comment ID 0049-cp.001.004

Author Name: Sheppard Brandon

Organization: Weed Man of Winchester

In regards to the procedural manner in which the proposed TMDL are being presented to the states, namely Virginia, we are concerned that the Virginia's effort to meet, and in some instances surpass the proposed TMDL limits are not being given adequate recognition.

Additionally, the costs of implementation the proposed TMDL standards, beyond the levels proposed by Virginia, are prohibitively expensive for many rural communities and agricultural operations.

Response

It is EPA's preference that the jurisdiction WIPs are used to meet the allocations. However, the WIPs need to meet the expectations outlined in the accountability framework outlined in its September 11, 2008, letter to the Chesapeake Bay Program's Principal Staff Committee (PSC) and further developed in letters sent by EPA to the jurisdictions on November 4, 2009, and December 29, 2009 as

well as the eight elements outlined in EPA’s April 2010 “Guide for EPA’s Evaluation of Phase I Watershed Implementation Plans.” Where WIPs do not meet these criteria, backstop allocations may need to be applied. EPA’s evaluation of the final WIP for each jurisdiction can be found in Section 8 of the final TMDL report. EPA appreciates the significant cost pressures facing state and local governments given the current economic climate. Also please see response to comment # 0435.1.001.009.

Comment ID 0070.1.001.011

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR realizes that construction and post-construction stormwater management is being addressed in the recently adopted revisions to Chapter 102, erosion and sedimentation regulations and that the PA DEP is also developing the next-generation general permit for Municipal Separate Storm Sewer System (MS4) communities. EPCAMR was integral to authoring a four page section of a guide book (<http://www.stormwaterresourcesformunicipalities.com/>) for municipalities on Stormwater Management in partnership with the Pocono NE Resource Conservation & Development Council that took into consideration the post-construction stormwater impacts on downstream areas of recently reclaimed abandoned mine lands and on not encouraging the BMP of infiltration in areas of the Coalfields that were previously mined due to the potential for creating additional abandoned mine drainage (AMD), subsurface, in areas that were previously mined. Nearly 400 copies of the guidebook were distributed by the Pocono NE RC & DC just a few years ago and are still readily available to other municipalities online.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0073-cp.001.004

Author Name: Comment Anonymous

Organization:

Lets start a program that requires a soil sample for yard fertilization and when you have purchased the max allowed in your sample you cannot buy any more for the year. This would not only help the bay in rural areas but also provide relief to treatment plants who noe spend great amounts of money and time removing nitrates from the storm sewer run off.

Response

See response to Comment No. 0035-cp.001.002

Comment ID 0093-cp.001.001

Author Name: White Al

Organization: Bio-Sun Systems, Inc.

The nutrient / sediment portion entering the Chesapeake Bay from sewage plants/ septic systems is primarily caused by humans utilizing flush toilets, urinals, garbage disposal units, etc. Fully 88% of the ammonia/ nitrogen from the human sewage source is from humans urinating in those fixtures. The solution is simple. Discontinue the use of flush/ drainage fixtures.

The definitive remedy is not to attempt "fix" the sewage but to stop creating the sewage. We have been developing and practicing such a mission for more than 30 years. With the utilization of waterless and vacuum micro-flush fixtures and on-site, aerated mineralization beds we have the capability of rescinding all sewage from domestic sources.

We have recently completed a larger system for a new nature center for the city of Baltimore, MD. Design load= 500 uses per day with near zero maintenance and zero sewage discharge. Please contact me for more details

Response

See response to Comment No. 0035-cp.001.002

Comment ID 0094-cp.001.002

Author Name: Holland L.

Organization: W.T. Holland & Son's, Inc.

We like conservation tillage, not only is it a good practice it is an economical practice.

Response

See response to Comment No. 0035-cp.001.002

Comment ID 0102-cp.001.004

Author Name: Goggin Brenna

Organization: Delaware Nature Society

The Society also believes stormwater runoff and other impacts from development represent a major source of pollution in the Chesapeake Bay watershed that is increasing. While stormwater BMP's have been effective in some areas, the

increase in development around the Bay have negated the BMP's workability. We strongly support performance standards in regulatory programs and allowing permitted entities to innovate in order to achieve or surpass these standards. The concept of predevelopment hydrology standards is an example of a performance based approach that has great potential for improving water quality.

Thank you for the opportunity to comment.

Response

EPA agrees that performance standards based on measurable environmental outcomes such as predevelopment hydrology are the preferred way to control and monitor stormwater discharges.

Comment ID 0110.001.004

Author Name: Siewick C.

Organization:

Simple things like discourage dumping into storm drains, or using too much fertilizer on people's lawns help. Pollution discharge permits should be rewritten or denied..

Response

See response to Comment No. 0044.1.001.004

Comment ID 0134-cp.001.001

Author Name: Moretti S.

Organization:

I came here today to advocate for riparian buffer zones and wetlands as low cost, high impact water filtration systems.

I have noticed many areas throughout the Susquehanna River Basin where pasture or lawn stretches uninterrupted to waterways. Every area where runoff proceeds directly from pasture or lawn into the waterway becomes a wide open conduit for nutrients and sediment to enter the water. To compound the problem, these same areas often serve as habitat for ground nesting birds so the bird waste gets washed directly into the waterways with each rainfall. Controlling the bird populations is apt to have varying degrees of success, but an adequate riparian buffer zone, perhaps accompanied by edge-based wetland areas, would forevermore catch the runoff and filter it before it enters the waterway.

EPA could establish riparian buffer zones in areas where they are lacking through a five year, three step approach.

Step one: provide targeted educational outreach. Step two: offer encouragement or incentives to property owners along waterways. Since the various programs available now all require massive amounts of paperwork as well as the assistance of various experts, this step would need to address these obstacles by offering programs that are easy to understand and easy to implement. Step three would be to mandate riparian buffer zones throughout the Chesapeake Bay Watershed. The buffer zone could consist of an overgrown swath of vegetation, a section of forest or a perennial garden. The beauty of this program is that it is simple to oversee, since the only parameter is that there cannot be lawn or pasture alongside the waterway.

So as you consider testimony about sophisticated sewage filtration plants and other expensive measures, please remember that while those systems have their places the foundation of the solution should be built upon the most economical and effective surface water filtration systems available: riparian buffer zones and wetlands.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0139.1.001.002

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

Soil and Water Conservation Districts have built trusted relationships with landowners to implement these water quality best management practices. In 1992 only 0.13 miles of stream bank protection was installed in Augusta County. In 2010, 40.7 miles of stream bank protection was installed. This is a result of better awareness through education, flexible fencing programs, and greater acceptance by a young generation returning to manage the farm. We need to encourage this increased participation with adequate and reliable cost-share incentives and not regulation.

Response

EPA believes farmers across the Chesapeake Bay watershed have done a great job in reducing nutrient pollution from their lands over the past 25 years. However, after 25 years of efforts to restore the Bay, these voluntary efforts have not achieved the water quality goals needed to restore the living resources of the Chesapeake Bay. Through the TMDL, EPA seeks to create a level playing field in the agricultural community by ensuring that each Chesapeake Bay jurisdictions' WIP includes compliance assurance and enforcement response programs that address those farm operations that are discharging pollutants into the Bay and its tributaries.

Comment ID 0139.1.001.008

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

To maintain our landowner relationships we believe the communication chain should be EPA to our established state agencies then to Districts for implementation.

Response

The strength of the Chesapeake Bay Program over the past 25 years and one of the reasons nutrients have been reduced to current levels is the unique partnership between federal, state and local governments and stakeholders. The Chesapeake Bay TMDL process has highlighted the need to improve upon the communication between EPA and the state and local conservation districts in order to ensure that landowners understand what is required of them to meet the TMDL nutrient reduction goals. Once that message is clear, then the relationship between the landowner and the Districts will be the avenue to determine what is necessary to meet those goals.

Comment ID 0139.1.001.015

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

6. To maintain trusted landowner relationships, EPA should use established state channels for communication

Response

See response to comment 0139.1.001.008.

Comment ID 0151.001.010

Author Name: Woodford RC

Organization: Chenango County Board of Supervisors

WHEREAS each and every day farmers across New York work to improve their environmental sustainability recognizing that appropriate natural resource management is critical to maintaining success of their businesses for future generations; supporting farmers in these endeavors is how government can best aid agriculture in protecting water quality; and

WHEREAS we support state and locally driven collaborative initiatives which effectively use federal environmental funds and specifically address areas of high environmental risk and employ a farm-specific focus, such as NYS Department of Agriculture and Market's Agricultural Environmental Management Program

Response

See response to Comment No. 0080-cp.001.002

Comment ID 0154-cp.001.003

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- Available resources should be used effectively to get the best level of improvement in water quality possible. This requires a cost-effectiveness analysis as part of the allocation of loads and selection of qualifying practices.

Response

The CWA Section 303(d) requires TMDLs to be established for impaired or threatened waters at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety. Federal regulations at 40 CFR Section 130.7(c) track the statute and require TMDLs to be developed at levels necessary to attain and maintain the applicable narrative and numerical water quality standard with seasonal variations and a margin of safety and that take into account critical conditions. TMDLs are to include wasteload allocations for each point source and load allocations for nonpoint sources. EPA relied on the states, through their WIPs to bring cost effectiveness considerations into the planning. Fortunately, because of much improved final WIPs, EPA has chosen to reduce or remove the backstop allocations that EPA used in the draft TMDL. The final allocations can be found in section 8.

Comment ID 0159.001.005

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Given these loading estimates, a failure to create meaningful water quality credit trading, incentives and other creative programs involving the agriculture and wastewater treatment sectors will clearly lead to a failure of the cleanup effort. Agriculture activities are exempt from the federal Clean Water Act and the only agricultural practices that are regulated through permitting is concentrated animal feeding operations.

Response

EPA commends MSBA's interest in the continued development of Maryland's trading program.

EPA's proposed reductions to POTW and CAFO/AFO allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance by other sectors including Agriculture as demonstrated in WIPs. EPA is responsible for ensuring that nutrient

and sediment reductions envisioned in draft WIPs will be achieved. Continued population growth and development in the Chesapeake Bay watershed is largely responsible for the current state of the Bay and the necessity for a TMDL. EPA understands that the TMDL will affect patterns of growth and economic development, including POTW and sewer capacity, in the watershed. Such adjustments are necessary to achieve the objective of the TMDL, which is to meet water quality standards throughout the watershed.

In the TMDL, EPA has attempted to identify and promote options for the jurisdictions to accommodate growth while meeting the TMDL allocations. Offsets and trading use free market approaches to allow new and existing dischargers to meet their allocations by paying for pollutant reductions at another location. These approaches have been implemented in several Bay jurisdictions. EPA supports these efforts and believes the success of these efforts, particularly for stormwater and on-site or septic systems, depends on the states' success in creating greater demand for load reductions from these sectors. Creating additional pressure on sectors like agriculture that have not traditionally felt a demand to decrease their loadings will stimulate market activity in this area.

Comment ID 0159.001.012

Author Name: Farasy Tom

Organization: Maryland State Builders Association

What we have at present is a set of Plans with directives and mountains of new regulations. What has not been addressed is a Clean Up Program Initiative that will show how to pay for the end goal of Cleaning Up the Bay by 2025.

Response

The CWA Section 303(d) requires TMDLs to be established for impaired or threatened waters at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety. Federal regulations at 40 CFR Section 130.7(c) track the statute and require TMDLs to be developed at levels necessary to attain and maintain the applicable narrative and numerical water quality standard with seasonal variations and a margin of safety and that take into account critical conditions. TMDLs are to include wasteload allocations for each point source and load allocations for nonpoint sources. As part of the state WIPs, EPA has asked for identification of the resources needed to implement the recommended programs. Thus far the federal government and some states have provided substantial amounts of public monies for the restoration of the Bay.

Comment ID 0182.1.001.016

Author Name: Rowland Jeremy

Organization: Bion Environmental Technologies, Inc.

Bion's projects at Kreider Farms in Manheim, Pennsylvania as well as the Energy Works project in Gettysburg will demonstrate an ability on the part of Pennsylvania to meet its mandated nutrient reductions primarily from its livestock producer industry at significantly less cost than the EPA regulatory backstop position.

Response

See response to 0182.1.001.004

Comment ID 0183-cp.001.004

Author Name: Owens James

Organization: Harvey Lindsay Commercial Real Estate

The BMPs required by the urban suburban sector to meet this shift are documented by Mike Rolband to be more than 10 times more expensive than available WTP technologies that could be phased-in with EPA approval over the full 15 year TMDL implementation period.

Response

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community or on any one sector. EPA allowed and encouraged jurisdictions to develop a Watershed Implementation Plan that meets the TMDL allocations in the manner most feasible for that jurisdiction. Also please response to comment # 0435.1.001.009.

Comment ID 0183-cp.001.007

Author Name: Owens James

Organization: Harvey Lindsay Commercial Real Estate

o The revised WIP should clarify Virginia's commitment to legislation that will prohibit the sale of fertilizer with phosphorus in Virginia except under limited circumstan

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.003

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

To ensure that state allocations and the overall Bay TMDL are met, EPA has established a new accountability framework that represents the first real opportunity to hold the Bay jurisdictions accountable for their promises to reduce pollution and clean up the Bay. States will play a key role in achieving the Bay TMDL, and states that fail to contribute or fail to provide an equally powerful alternative are undermining the overall goals that several generations of governors have endorsed.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.004

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

CPR has developed a set of metrics to evaluate each state's final Phase I WIP when it is published on November 29, 2010. The metrics will be used to assign letter grades that evaluate (1) the transparency of information in the WIPs in providing key information about mandatory and voluntary pollutant control programs and (2) the strength of these programs in making actual pollutant reductions. The metrics focus on major sectors under the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) permitting program and other elements identified by EPA in guidance documents and letters. [FN1] The comments below first describe the significance of each sector and then address each Bay jurisdiction's submission. We are happy to discuss these comments with you or your staff. Thank you for your leadership and commitment to restore the Bay. During the week of August 16, 2010, CPR sent a copy of these metrics to each of the Bay jurisdictions' leaders and the heads of relevant agencies. Please see the attached list for all the recipients of this correspondence. CPR only received responses from Maryland and West Virginia. A copy of the metrics is attached to these comments. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0185.2]

[FN 1] 1 U.S. Environmental Protection Agency, "A Guide for EPA's Evaluation of Phase I Watershed Implementation Plans" (April 2, 2010) [hereinafter Phase I Guide], available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/GuideforEPAWIPEvaluation4-2-10.pdf, and Letter from William C. Early, Acting Regional Administrator, EPA Region 3, to L. Preston Bryant, Jr., Virginia Secretary of Natural Resources (Nov. 4, 2009) [hereinafter Expectations Letter], available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/tmdl_implementation_letter_110409.pdf.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.005

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Overall, the Bay jurisdictions' draft Phase I WIPs do not provide an adequately clear or defined roadmap to achieving the Bay TMDL. The draft WIPs tend to list with varying degrees of specificity the state programs related to achieving the Bay TMDL without explicitly committing to strengthening existing programs or implementing new actions to make actual pollutant reductions. The extent to which states disclosed information for the transparency of information evaluation necessarily determines the ability to evaluate the strength of the programs. In the final Phase I WIPs, all Bay jurisdictions must provide the specific numbers and amounts of resources available and needed to form a baseline of information against which future progress can be compared. All Bay jurisdictions must make specific commitments, demonstrated by establishing timelines and milestones, to improve existing programs or implement new programs to achieve the allocations under the Bay TMDL. The Phase I WIPs should amount to more than an inventory of state programs; they should constitute a defined roadmap to which EPA and the public can hold the Bay jurisdictions accountable.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.006

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Because these dischargers must all comply with their permits, a strong and up-to-date NPDES permit program is the guaranteed means of reducing pollutant discharges.

When a permit expires, the facility is not shut down but rather continues to operate indefinitely under its expired permit, which does not incorporate new standards or regulations passed in the interim. A significant number of expired permits indicates that a state lacks the capacity to administer an effective permitting program, a crucial deficiency given the need to rewrite all permits in a timely fashion to meet TMDL allocations. Permits are typically written for a five-year term. Expiring NPDES permits must be renewed promptly, in compliance with any applicable TMDL. For the Bay TMDL, all NPDES permits should incorporate the wasteload allocations by no later than December 30, 2015.[FN 2]

[FN 2] This date assumes that EPA finalizes the Bay TMDL on or before December 31, 2010. Assuming that the last new or reissued permit issued before the Bay TMDL goes into effect is December 30, 2010, and expires on December 30, 2015, this permit would need to be updated or reissued in accordance with the TMDL on or before the expiration date. All currently expired permits, if reissued after the Bay TMDL is in effect, must include the applicable Bay TMDL allocation.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.007

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

The final Phase I WIP should establish not only on implementation milestones and targets but also institutional milestones to establish programs that better regulate and monitor pollutant discharges. For example, progress on implementation milestones may be measured by counting the number of facilities that undergo necessary upgrades. Institutional milestones, however, focus on the state agency's progress in updating and reissuing permits, targeting enforcement actions, or acquiring new funding to fill existing gaps. Adopting both types of milestones will ensure achievement of the Bay TMDL.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.008

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

A strong, deterrence-based enforcement program is the most effective way to ensure compliance with NPDES requirements. Deterrence-based enforcement is based on the theory that regulated entities will comply with the law where compliance costs less than violating the law. Thus, penalties for noncompliance must be severe enough to motivate compliance. Deterrence-based enforcement is characterized by four essential elements: (1) sufficient, consistent, and regular compliance monitoring to identify violators; (2) timely initiation of enforcement actions against violators; (3) a mandate that the violator come into compliance with applicable laws and regulations; and (4) imposition of penalties that, at a minimum, eliminate any economic benefit that the violator gained from violating the law and that provide a deterrent for future violations.

Because the NPDES permitting program has been the key to reducing pollution from point sources, ensuring compliance through effective enforcement is crucial. The Phase I WIPs should provide detailed information regarding a state's enforcement program in order to allow the public to understand and assess the effectiveness of the program.

One possible venue for annual public disclosure is for the all Bay jurisdictions to pass legislation requiring an annual

report of enforcement activities, such as section 1-301(d) of the Maryland Environment Code.[FN 3] This section requires the Maryland Department of Environment (MDE) to publicly disclose information, including:

- The number of permits issued and in effect for the preceding year; This section requires the Maryland Department of Environment (MDE) to publicly disclose information, including:
- Information on the total number of inspections, audits, or spot checks performed at facilities with permits;
- Information on the total number of injunctions, corrective actions, and stop work orders issued;
- The total amount of money collected as a result of administrative and civil penalties; and
- The number of criminal actions charged, convictions obtained, and fines received.

MDE also discloses the annual budget for each program and the level of staffing. By publishing this information each year, the public can track the effectiveness of MDE's NPDES permitting program and encourage improvements in its enforcement programs. If other states had legislation requiring similar annual disclosure, states may be further encouraged to improve their enforcement programs by comparison and political pressure.

[FN 3] MD Envir. Code § 1-301(d).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.009

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

While nonpoint sources are not subject to mandatory pollutant controls under the Clean Water Act, they are assigned load allocations under the Bay TMDL. Achieving these load allocations depends largely on voluntary practices and federal, state, and private incentive programs that subsidize farmers for implementing best management practices (BMPs) to control nutrient runoff, for example. In the WIPs, EPA and all Bay states must commit to making every effort to regularly monitor and verify that nonpoint sources that have received public funding for implementing BMPs or other pollutant controls do in fact have these practices in place, maintained, and functioning. For example, federal grant programs in section 319(h) of the CWA and in USDA's primary conservation funding programs (Environmental Quality Incentives Program, Conservation Reserve Program, and Wetlands Reserve Program) provide funding for implementation of these practices. Thus, monitoring and verifying these practices is important not only for achieving substantive reductions in pollutants from nonpoint sources but also for maintaining accountability for spending public funds.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.010

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Contingencies are a crucial part of the Phase I WIPs because they provide a concrete, alternative plan for how states will achieve their TMDL allocations if the primary pollutant controls are not implemented or fail to achieve the required reductions. Identifying contingencies requires states to undergo careful planning by identifying the full arsenal of potential tools that can be used to achieve reductions. Committing to implementing strong contingencies also provides assurance that, either through primary controls or the secondary contingent controls, the Bay TMDL and states' allocations will be achieved.

Per EPA guidance, states need to implement contingencies if delays in the adoption of new or revised legislation or regulations occur; if participation rates in voluntary programs fall below projections; or if compliance rates with regulatory programs are not achieved. States should also consider changes in land use, development rates, and voluntary participation rates.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.011

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Concentrated animal feeding operations (CAFOs) dot the entire Chesapeake Bay Watershed, with a high concentration of poultry operations on the Delmarva Peninsula. In 2008, Maryland poultry operations generated approximately 650 million pounds of chicken manure.[FN 4] That same year, new federal CAFO regulations went into effect. Among the changes included a requirement that CAFOs submit nutrient management plans (NMPs) as part of the NPDES permit applications. The regulations require state authorities must then review the NMPs and provide the opportunity for public comment and review. State authorities are required to include the terms of the NMP as enforceable elements of the NPDES permits. In general, states are required to update their CAFO permitting programs to be consistent with the federal regulations within one year of the effective date or, if a state statutory change is required, within two years.

Thus, by the end of 2010, all Bay states should have CAFO programs that are consistent with the 2008 federal regulations. More importantly, Bay states must ensure that all facilities that qualify as CAFOs receive permits that are consistent with both the updated federal regulations and the Bay TMDL. States should determine the status of the animal feeding operations in their state and issue CAFO permits where required.

[FN 4] Ian Urbina, In Maryland, Focus on Poultry Industry Pollution, N.Y. TIMES (Nov. 29, 2008) at A14.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.012

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Under the Clean Water Act, stormwater is considered a point source and thus requires a NPDES permit. The stormwater permit covers operators of municipal separate storm sewer systems (MS4s) and construction and industrial stormwater. All Bay states have delegated authority to administer the stormwater permitting program, which is often in turn administered by local governments. Thus, information about how local governments administer this program is crucial to curbing pollutant discharges from stormwater.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0185.1.001.013

Author Name: Steinzor Rena

Organization: Center for Progressive Reform (CPR)

Approximately one-third of the nitrogen in the Chesapeake Bay comes from atmospheric deposition through mobile, industrial, agricultural, and natural sources. [FN 5] The boundaries of the Chesapeake Bay airshed extend far beyond the boundaries of the watershed; nevertheless more than half of the atmospheric deposition of nitrogen comes from Bay states. Thus, reducing air deposition will require coordinated efforts by Bay states and EPA under the Clean Air Act to ensure that emitters comply with their permits and to bring effective enforcement actions against those in violation of those permits.

[FN 5] Chesapeake Bay Program, "Air Pollution," <http://www.chesapeakebay.net/airpollution.aspx?menuitem=14693> (last visited Oct. 12, 2010).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0191.1.001.003

Author Name: Smith Robert

Organization: Farm Credit East, ACA

It is our understanding that farmers in up to 18 counties may be impacted by the draft TMDL allocations. New York farmers have already spent tens of millions of dollars to protect water quality through comprehensive planning and implementation of elements of the Agricultural Environmental Management program, administered by the State Soil and Water Conservation Committee, and by installing best management practices recommended by that program and USDA NRCS. In many cases farmers have incurred additional debt to finance environmental improvements on their farms.

Response

See response to Comment No. 0103.1.001.009

Comment ID 0194.1.001.007

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

There are far less expensive BMPs that can be established to lower pollution levels. I also expect a variety of lawsuits will be leveled at EPA if it sticks with the lower limits.

Response

EPA appreciates the significant cost pressures facing state and local governments given the current economic climate. However, neither the CWA nor EPA's implementing regulations require the state or EPA to consider the costs to implement the TMDL when establishing the TMDL at a level necessary to achieve the applicable water quality standards. While additional point source controls on wastewater treatment plants can be expensive, EPA proposed this backstop action in the draft TMDL because point sources are the pollutant discharging source sector for which the CWA gives EPA the regulatory authority to ensure implementation of needed controls to meet Pennsylvania's allocations.

EPA has reconsidered its approach to federal backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final Phase I WIPs and informative public comments on this issue. The final TMDL places much greater emphasis on jurisdictions' final Phase I WIPs and less emphasis on backstops in deriving the loading allocations for all sectors. Please see Section 8 of the final TMDL for the final Phase I WIP evaluations and the backstop allocations for each jurisdiction.

Comment ID 0200.1.001.011

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- The text does not indicate if the transport factor in the Bay model accounts for reservoirs that are located between the stream and the Bay. It would be helpful to clarify.
- There is a need to define "control strategies" more clearly up front.

Response

Neither the term "transport factor" nor the term "control strategies" appear in the draft TMDL document.

The meaning of "transport factor" is clear enough from the context of the comment. The term used in the draft TMDL is "delivery factor". Assuming these are synonymous, the delivery or transport factors do account for reservoirs. Approximately 40 of the largest reservoirs are simulated in the Bay watershed with a significant effect on delivery factors. See section 6.3.1 on page 6-21 of the draft TMDL.

Comment ID 0216.1.001.007

Author Name: Johnson Rick

Organization: Algae Producers of America

Finally, in reviewing the relevant remediation technologies, the Ohio EPA considers the following 5 areas of concern for each suggested technology proposed:

- Does the technology specifically address the cause of water quality impairments?

o Our technology should be considered as part of a comprehensive technology roadmap to address the challenges faced. We have demonstrated the ability to successfully address the reduction of nutrient loads from point sources, such as wastewater treatment facilities and industrial sites to levels below those commonly achieved through ENR technologies. The result is reduced nutrient inflow into targeted waterways.

- Is the technology cost-effective?

o Our technology is a bolt-on module which does not require significant changes to infrastructure. Further, the smaller foot-print required also reduces the valuable land space required. Our mobile demonstration module provides proof of concept before any monies would be expended on a more "permanent" solution, thereby enabling a more informed decision to be made.

- Is the proposed technology sustainable?

- o The use of an algae-based solution as part of a comprehensive strategy is sustainable and environmentally beneficial through its reduction in GHG emissions and production of valuable co-products. Further, we have demonstrated the ability to reduce nutrient loads on a year round basis.

- Has the technology been peer-reviewed or is it experimental in nature?

- o The State of Ohio through its awarding of an Ohio Third Frontier Grant has acknowledged that algae-based solutions are viable possibilities. Our customers who are currently using this technology would support that it does work.

- Does the technology have a track record dealing with problems on the scale needed?

- o Like other significant bio-remediation challenges, the solution to the problems faced will require a comprehensive approach involving technical solutions, land management, and education. Our technology would be considered a part of this effort. In demonstration at several municipal wastewater treatment facilities (up to 8M GPD capacity), we believe our track record is established.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0223.1.001.005

Author Name: Hazenstab Robert

Organization: Duncansville Municipal Authority

7. We think that the dredging darns on the Susquehanna River to remove sediments and entrained phosphorous is an excellent idea and should be funded and handled by the Federal Government via the US Army Corps of Engineers.

Response

See response to Comment No. 0230.1.001.054 regarding management plans for dams located along the Susquehanna River.

Comment ID 0228.1.001.018

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

A. Action Items Required to Achieve the Proposed WIP Modification

2. Establish Urban Fertilizer Regulations

Another practical and cost-effective option for the Commonwealth is to establish urban fertilizer regulations that include the following nutrient management strategies to reduce TN and TP loadings from home lawns and commercial landscaped areas:

- a) Ban on phosphorus use except for newly-planted lawns (1st year) and requirement to use slow-release nitrogen (SRN) formulations only;
- b) Ban on sidewalk/driveway applications of fertilizers and lawn clippings;
- c) Requirement that fertilizers be applied only by certified applicators in conjunction with soil testing when not using phosphorus-free/SRN formulations on established (older than 1 year) lawns;
- d) Implementation of education and public outreach programs that communicate the importance of not exceeding recommended application rates and timing; and
- e) Exceptions for organic-based fertilizer formulations that have low TP levels.

Both SRN and phosphorus-free fertilizer are currently available to the public. As an example, Exhibit 6 (Availability of Phosphorus-Free Fertilizer) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] provides photos documenting the availability SRN and phosphorus-free fertilizer at the Merrifield Garden Center in Gainesville, Virginia, on November 2, 2010 [FN38] at the same cost as standard fertilizer. This comparison reinforces the fact that urban nutrient management has the ability to reduce nutrients in an extremely cost effective manner (no cost to less than \$10/year [FN39] for a quarter-acre lot).

[FN 38] In direct comparison of Fairway Formula GreenView fertilizer covering 5,000 square feet per bag. Each formula (29-2-10 Fall fertilizer; 30-0-12 Fall fertilizer with 3/5ths SRN; and 31-0-0 Late Fall fertilizer with 9/10ths SRN) was priced at \$39.99.

[FN 39] Based on conversations with industry experts and cost comparisons at retail stores in July, 2010. Assuming the approximate cost of straight urea fertilizer is \$0.80/pound applied and poly- or sulfur-coated urea fertilizer is \$2.30 to \$2.70/pound applied (an expensive Slow Release Nitrogen Source), with 1 lb/slow release Nitrogen per 1000 sf/year used and no extra cost for including Phosphorus in the fertilizer. However, as noted above, some stores have no price premium for Phosphorus-free and SRN products.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0256.1.001.002

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

Local governments will be directly impacted by the Bay TMDL, and have consistently been told by EPA and state partners that they will play a major role in how it is implemented. Therefore, it is imperative that EPA and the states respond to the concerns of local governments throughout the Bay Watershed.

EPA's evaluation of the District's and individual state's WIPs are instructive because they are described as the cornerstone of the accountability framework for meeting the Bay TMDL. EPA has concluded that while Maryland and the District of Columbia have some deficiencies, all the other states, Virginia and Pennsylvania, and the headwater states of Delaware, New York, and West Virginia, have serious deficiencies. Their evaluation also concluded that none of the seven WIPs provide "reasonable assurance" that pollution controls identified could actually be implemented to achieve the nitrogen, phosphorus, and sediment reduction targets by 2017 or 2025. In public meetings in October and November throughout the Watershed, EPA has also expressed an expectation that these deficiencies and more detailed information provided by the states in the revised WIPs will lead to a final TMDL with few if any EPA "backstop" measures.

Response

Thank you for your comment. Fortunately, the expectations that EPA expressed this fall have come true. The state WIPs are much improved, allowing EPA to reduce or remove the backstops. Please see Section 8 of the final TMDL report for the results of the final Phase I WIP evaluations for each jurisdiction.

Comment ID 0256.1.001.003

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

EPA and the Chesapeake Bay Program have continually recognized the importance of local governments as vital partners in implementing measures that will restore and protect the Chesapeake Bay. LGAC directly advises the Chesapeake Executive Council and participates in the Management Board and the Principal's Staff Committee meetings and other Bay Program activities with partner states and the District of Columbia. Yet there is no direct recognition of local governments in the Draft TMDL, or in the guidance EPA gave to the states for their Watershed Implementation Plans.

Consultation with local governments prior to making TMDL related decisions is absolutely necessary. Some states have created single, broad based stakeholder advisory groups with a few local government officials as members. And they point to those groups as the primary source of input from local governments. Our experience is that process is wholly inadequate. There is little evidence that the majority of states have included the concerns of their local governments in their Watershed Implementation Plans.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0256.1.001.005

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

In the Virginia pilot projects, there are local and regional governmental units, including cities, counties, towns, planning districts, and soil and water districts. In the pilots, each has distinct experiences, authority, and funding which can make the project stronger if all are involved. The use of more existing, local forums to bring stakeholders together can result in more creative and useful local and or regional solutions. EPA should incorporate the lessons learned in the various state WIP pilot projects into its requirements for local government involvement in the Phase 2 WIPs.

LGAC recommends that EPA issue specific guidance to the states to require meaningful consultation with local governments in the Phase 2 WIPs. Further, EPA should request that all states develop a plan and criteria for local government involvement that would be a part of the WIP approval process. To the extent possible, EPA should spell out its expectations now for local government involvement in the final TMDL issued in December of 2010.

Response

See response to Comment No. 0302.1.001.008

Comment ID 0262-cp.001.002

Author Name: Goldsmith K.

Organization:

However, none of the draft state WIPs submitted to EPA meet even a minimum acceptable standard. Most importantly, none of the draft WIPs provide reasonable assurances that significant non-point source reductions will actually be achieved. Unless EPA firmly corrects these deficiencies, you will ensure a polluted, sick Chesapeake Bay for decades to come.

Response

EPA reviewed each jurisdiction's WIP to ensure that it meets the accountability framework outlined in its September 11, 2008, letter to the Chesapeake Bay Program's Principal Staff Committee (PSC) and further developed in letters sent by EPA to the jurisdictions on November 4, 2009, and December 29, 2009 as well as EPA's April 2010 "Guide for EPA's Evaluation of Phase I Watershed Implementation Plans." Any WIPs that do not meet these expectations may be subject to backstop allocations or other federal actions as described in the referenced letters. EPA's evaluation of each jurisdiction's final WIP can be found in Section 8 of the final TMDL report.

Comment ID 0274-cp.001.003

Author Name: Goldsmith K.

Organization:

In addition, state WIPs MUST include reasonably assured means to achieve their promises.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0302.1.001.008

Author Name: Williams Nat

Organization: The Nature Conservancy

At this stage, we would like to offer one comment on how EPA might strengthen the TMDL moving forward. Specifically, we encourage EPA to provide guidance on how the Phase 2 WIPs should address the need to protect those places in the Bay watershed that have not yet suffered significant degradation. As EPA is well aware, we cannot restore the Chesapeake Bay unless we protect healthy waters at the same time we are improving degraded ones. A balanced approach to water quality management that includes the protection of healthy waters is not only more cost-effective than reducing pollution after degradation occurs, it is also essential to ensure that the scope and scale of the problem does not continue to worsen.

Response

Much of the guidance already provided to the states on the Phase I WIPs, such as the September 11, 2008, letter to the Chesapeake Bay Program's Principal Staff Committee (PSC) and additional letters sent by EPA to the jurisdictions on November 4, 2009, and December 29, 2009 as well as the eight elements outlined in EPA's April 2010 "Guide for EPA's Evaluation of Phase I Watershed Implementation Plans" will be applicable for development of the Phase II WIPs. In addition, EPA is currently working with jurisdictions and local stakeholders to determine what additional support, such as guidance, our partners are seeking for the Phase II WIP process. With regard to the point about protecting already high quality streams, we need to protect them at their high quality. In EPA's professional opinion, the growth provisions of the state WIPs should provide some level of protection. That is, since the Bay TMDL is a cap on additional loads, this should discourage these additional loads from coming into the Bay system.

Comment ID 0302.1.001.010

Author Name: Williams Nat

Organization: The Nature Conservancy

Ensuring that Phase 2 WIPs account for local land and water protection efforts will also encourage local community buy-in in places far from the mainstem Chesapeake Bay, while supporting reasonable assurance that pollution caps can be maintained into the future.

Response

See response to Comment No. 0302.1.001.008

Comment ID 0312-cp.001.004

Author Name: Nguyen Vinh

Organization: Northern Virginia Association of Realtors (NVAR)

- Evaluating the full impact of urban development retrofit requirements on existing developments with impervious surfaces, including commercial and residential parking lots as well as state and local highways.

Response

Because the final Phase I WIPs submitted by Virginia was improved, EPA is not proposing a backstop allocation in the final TMDL that requires urban stormwater retrofits in Virginia. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0326-cp.001.002

Author Name: Strickler Matthew

Organization: Old Plantation Oyster Company

It is critical that every sector that has an impact on the Bay contribute to this effort. Increased agricultural best management practices, addressing nutrient pollution from centralized wastewater treatment plants and septic tanks, as well as regulations limiting stormwater runoff from new and existing development will all be necessary.

Response

EPA agrees with the commenter. Jurisdictions were responsible for allocating loads to each sector as part of its Phase I WIP.

Comment ID 0340.1.001.002

Author Name: Miner Steven

Organization: Accomack County, Virginia

The TMDL has no direct mention of local governments, not are we located within the guidance the EPA gave to the states on the Watershed Implementation plans. This, despite the critical link local government will have on the success and/or implementation of water quality improvement efforts. We would ask at the minimum that the State of Virginia will allowed the time, and very strongly encouraged, to engage local government in the Phase 2 WIP's, where allocations will be made down to the county level.

Response

See response to Comment No. 0256.1.001.003.

Comment ID 0370-cp.001.006

Author Name: Page T.

Organization:

o The revised WIP should clarify Virginia's commitment to legislation that will prohibit the sale of fertilizer with phosphorus in Virginia except under limited circumstances including for the establishment of new lawns, when a soil test calls for it or organic fertilizer is used.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0393.001.001

Author Name: Campaign Mass

Organization: Environment America and Environment Virginia

"Dear Administrator Jackson,

As the EPA reviews the states' cleanup plans for the Chesapeake Bay, I urge you to keep two things in mind. First, the only way to reduce pollution enough to restore the Bay is to require polluters to change their practices. Corporate

agribusiness alone generates 1 billion pounds of chicken manure in the Bay region every year. That kind of pollution is not going to disappear voluntarily, and the EPA should reject any state plan based on the premise that it will.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0394.001.005

Author Name: Heavner Brad

Organization: Environment America et al.

States Must Adopt Effective, Mandatory Practices for Non-Point Sources. The TMDL pollution reduction levels will not be achieved without deep reductions from the non-point sectors of agribusiness and urban runoff.

Agribusiness. Industrial agribusiness is the most under-regulated source of pollution in the Bay region. The demands of companies like Tyson and Perdue generate 1 billion pounds of chicken manure in the watershed alone.[FN 1] Common sense tells us that voluntary efforts cannot tackle pollution of this magnitude. In fact, the numbers bear out that truth. According to USDA, after 26 years of voluntary conservation programs only 19 percent of the more than 4.3 million acres of harvested crop land in the watershed is now adequately managed to control agricultural runoff. [FN 2] At that rate, the mostly voluntary approach would take another 100 years just to control runoff from harvested crop land. That is not acceptable.

If this TMDL is to actually restore the Bay, then the states must commit in their WIPs to begin treating agribusiness like every other industrial source of pollution - with mandatory pollution reduction measures. For example, the EPA was right to recommend to the State of Maryland that it require cover crops. [FN 3] Now the EPA must continue on this path, insisting that all the states adopt such mandatory practices, including but not limited to these common sense steps:

Cover crops must be planted on fields after corn is harvested or manure is applied.

Manure must be stored in sheds or on slabs with a tarp.

Farmers must install setbacks from streams and ditches.

When manure or sludge is applied, it must be incorporated into the soil within 24 hours or injected.

No manure or sludge application should be allowed from November through March.

Fertilizer Usage on Turf. Addressing nutrient over-application in urban and suburban settings that is comparable to efforts on agricultural lands is important for equity reasons and for water quality reasons. We must reduce needless fertilization of home lawns.

States should eliminate phosphorus from residential fertilizer. Home lawn fertilization constitutes one of the most important and cost-effective nutrient reduction sources. First, home lawn fertilization is not needed to promote healthy turf growth in most lawns. The existing soils are generally capable of supplying enough nutrients, particularly in the case of phosphorus. Second, studies in Minnesota and Michigan communities have shown sharp decreases in phosphorus

concentrations in rivers and lakes within a year of passing a fertilizer phosphate ban.

[FN 1] U.S. Poultry and Egg Association, Industry FAQ, downloaded from www.poultryegg.org/faq/faq.cfm, 2 September 2010. Chicken production in DE, MD and VA counts broiler chickens, per USDA National Agricultural Statistics Service, 2007 Census of Agriculture, 4 February 2009.

[FN 2] Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Watershed, draft October 2010, Conservation Effects Assessment Project, U.S. Department of Agriculture, available online: http://www.livablefutureblog.com/wp-content/uploads/2010/10/ceap_chesapeake_bay_report.pdf

[FN 3] EPA Comments on the Maryland Draft Phase I Watershed Implementation Plan, October 1, 2010.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0395.001.001

Author Name: Campaign Mass

Organization: Environment Maryland

Thank you for your leadership in this unprecedented opportunity for clean water. Your hard work now relies on ensuring the states hold all Bay polluters accountable.

I urge you to accept state plans only if they require polluters to improve their practices. The past decades have proven that voluntary measures are not enough. Corporate agribusiness alone generates 1 billion pounds of chicken manure in the Bay region every year. As you have suggested, state plans should include a requirement for cover crops to help manage all of that manure.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0410.1.001.013

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Has the lag in time for bringing non-MS4 areas under the MS4 permit and the time needed for the new MS4 jurisdictions to achieve full program capacity been considered in the WIPs?

Response

Where currently unpermitted discharges are being considered for permitting, or where currently non-compliant discharges must be brought into compliance, the time needed for these undertakings to occur has been considered.

Comment ID 0418.1.001.008

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

4. EPA Has the Authority and Responsibility to Require More Rigorous State Efforts to Reduce Pollutant Loadings to the Chesapeake Bay.

Throughout the TMDL, EPA has expressed its willingness to defer to the Bay States' identification and scheduling of specific programs and practices to control pollutant loadings. Some measure of deference is indeed appropriate, given the need for flexible responses to local conditions. However, EPA should not allow the states to exercise unbridled discretion in designing and implementing nutrient and sediment management practices. The goal of the iterative approach embodied in the three phases of WIP preparation is to select, prioritize and localize the practices that are most locally appropriate to control nutrient and sediment loadings to the Bay.[FN 15] In the recently submitted draft Phase I WIPs, Bay States were expected to "include a description of the authorities, actions, and, to the extent possible, control measures that will be implemented to achieve these point source and nonpoint source target loads and TMDL allocations." [FN 16] Naturally, many of the control practices and policies are well known to state agencies, EPA and the affected public after decades of study and evolution in nutrient and sediment management. State, federal, and industrial best practices manuals are replete with standards and specifications for practices and control measures that are currently available to achieve a desired level of pollutant management performance.

[FN 15] See Shawn Garvin, EPA Region 3 Administrator to Hon. L. Preston Bryant, Virginia Secretary of Natural Resources, November 4, 2009 ("WIP Expectations Letter") at 4.

[FN 16] Id.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0418.1.001.013

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

EPA's reliance on many programs identified in state WIPs, even in Phase I form, as indicators of "reasonable assurance" is undone by the widespread and significant shortcomings in these documents. All of the draft WIPs suffer from a lack of specific detail or commitment to filling gaps between the allocations and current loads. This is particularly, and disturbingly, true for state-led programs intended to achieve reductions from agricultural, urban stormwater, and on-site treatment (septic) loads. No state was able to firmly and satisfactorily demonstrate a strategy to address gaps in funding for voluntary BMP, technical assistance, or compliance/oversight programs. Despite assurances of widespread adoption of nutrient management planning on AFO/CAFOs throughout the watershed, most states were unable to provide assurances of such high levels or outline mechanisms for updating NMP standards to reflect contemporary, federal best practices. Most states failed to identify, or create, binding and enforceable commitments for reductions from agricultural, stormwater, and septic sources. Almost uniformly, Bay states were unwilling or unable to commit to initiating regulatory or legislative changes necessary to update pollution controls.

Response

See response to Comment No. 0262-cp.001.002

Comment ID 0418.1.001.017

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

b. Urban Stormwater Programs Are Inadequate

Stormwater, both from NPDES permitted MS4s and from unpermitted sources, plays a significant role in nutrient and sediment loadings to the Bay. EPA estimates that existing NPDES MS4 areas contributed over seven million pounds total nitrogen, 900,000 lbs total phosphorus, and nearly 300,000 tons of sediment annually in 2009.[FN 26] Looking more closely at the three states with the largest proportion of stormwater-borne pollutants, this source contributes 28% of the nitrogen, 28% of the phosphorus, and 32% of the sediment discharged to the Bay from Maryland; 33% of the nitrogen, 50% of the phosphorus, and 39% of sediment loads in Virginia; and in Pennsylvania, stormwater contributes 33% of the nitrogen, 16% of the phosphorus, and 21% of the sediment. Stormwater loadings of these pollutants from New York, West Virginia and Delaware represent a far less significant portion of their overall loads, lending emphasis to consistent and aggressive efforts to reduce stormwater pollution from the major states.[FN 27]

Reducing stormwater loadings of nutrients and sediment will require a two-fold effort on the part of EPA and the states. First, states must commit to eliminating, as nearly as possible, discharges of these pollutants from new development and redevelopment projects. Across much of the region, states are making progress toward this goal by updating stormwater permits and regulations to reflect low impact development and green infrastructure approaches. EPA must review these updates for their ability to deliver, in fact, the reductions that they promise in principle. Second, states must commit with equal vigor to programs that will reduce the effectiveness of existing impervious areas. Outside of Maryland and the District of Columbia, there are very few commitments by states to address the significant and permanent flows

from existing development. EPA must take assertive steps to ensure that all Bay states make consistent and measureable progress toward stormwater retrofit goals.

A closer look at the WIPs prepared by the three states generating the most stormwater pollution reveals some significant trends and concerns. Current Virginia and Pennsylvania permits and regulations do not effect measureable, objective performance standards for new development and redevelopment projects.[FN 28] Again, only Maryland and the District have recognized the necessity of reducing existing imperviousness via retrofit policies. None of the three has fully explored the possible application of residual designation authority to prioritize and increase the extent of developed areas subject to stormwater permitting and regulatory requirements. In its evaluation of their revised WIPs, EPA should seek reasonable assurances that stormwater loadings will be reduced to a level reflective of that set in the backstop TMDLs.

[FN 26] Draft TMDL at p. 4-27.

[FN 27] Draft TMDL at pp. 4-6, 4-7.

[FN 28] Pennsylvania relies on a narrative volume control standard that relies on managing the net change from pre-construction to post construction conditions for the 2-year storm event. See, e.g., PA WIP at 86.

Response

EPA in its comments to all states regarding their draft WIP documents has pointed to the need for reasonable assurance to demonstrate that proposed reductions will be achieved. Where state regulations and permits are concerned, EPA does perform a review to ensure consistency with NPDES regulations and any applicable environmental issues, such as the Chesapeake Bay TMDL. For example, EPA recently reviewed revised stormwater regulations in a number of our states including PA, VA, MD and DE, which in some manner address standards for new and redevelopment. Although not all of the state regulations have been formally adopted, EPA is hopeful that they will soon become effective state policies. Furthermore, EPA is encouraging all states to include retrofit standards in MS4 permits, as prescribed in our memo titled “Urban Stormwater Approach for the Mid-Atlantic Region and Chesapeake Bay Watershed” which was published in July 2010. EPA fully intends to use its authority under the CWA and NPDES program for municipal, industrial and construction stormwater permits to provide the reasonable assurance that is sought for ensuring that stormwater load reductions for the Chesapeake Bay will be achieved.

Comment ID 0418.1.001.023

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

c. Commitments in the Draft WIPs to Reduce Agricultural Loadings Are Inadequate.

NPDES permitting for CAFOs remains a critical regulatory tool for ensuring that these large livestock facilities are designed, operated and managed in a manner which employs the best available technology to eliminate discharges of pollutants to the Bay watershed. Recent amendments to EPA's CAFO regulations, as well as the Agency's May 2010 CAFO permitting guidance, explain EPA expectations of the livestock and nutrient management performance standards for permitted CAFOs, as well as the Agency's interpretation of the CWA permitting obligation for CAFOs that discharge or propose to discharge to waters of the United States. Unfortunately, based on available data, there appear to be significant shortfalls in NPDES permitting for CAFOs in the Bay watershed's most prominent agricultural states. Of the estimated 220 CAFOs in Maryland, only 7 were covered by the state's permit when EPA compiled permitting data this summer. Similarly, though EPA estimates that Virginia has 240 CAFOs according to NPDES definitions, [FN 37] none are presently covered by VPDES permits. Additionally, Virginia expects only 116 CAFOs to be subject to VPDES permitting obligations.[FN 38] Neither EPA nor VA have identified the reason for this discrepancy or measures to address it. In general, none of the state draft WIPs emphasize specific actions or commitments to expand NPDES permitting of CAFOs or oversight to ensure that all eligible CAFOs are brought under NPDES permits in a timely fashion.

The agricultural components of each state WIP incorporate the 2 Year Milestones for this category of sources. However, as outlined briefly above, there are significant shortfalls in progress toward meeting these goals across all Bay states. Yet none of the draft WIPs account for these shortfalls, or provide reasonable assurance that progress toward meeting the Milestones can be accelerated to make up for current deficiencies in pace. For example, according to an analysis conducted by the Chesapeake Bay Foundation, Virginia is failing to make adequate progress toward its goals for livestock exclusion from streams and the establishment of streamside buffers. [FN 39] In its draft WIP, Virginia predicts that adoption of these (and other critical nonpoint source control measures) will reach only single digit levels by 2017.[FN 40] Inexplicably, VA expects implementation levels to reach nearly 90% by 2025. Nowhere does the Commonwealth respond to current shortfalls in meeting its 2 Year Milestones or explain how it will enact binding commitments to provide reasonable assurances that full implementation levels will, in fact, be met. EPA correctly notes that Virginia "removed all regulatory drivers that could compel increased implementation of priority practices. Lack of regulatory driver may make action levels difficult to meet." [FN 41] In reviewing the revised Phase I WIPs submitted by Virginia and the other Bay states, EPA must insist on a full accounting of program shortfalls, uncertain regulatory and incentive-based responses, and the commitments necessary to make significant progress toward assurances that these measures will be implemented.

Among the questionable commitments by Bay states, NRDC is particularly concerned about Pennsylvania's poorly defined efforts to rein in nutrient and sediment loadings associated with the Commonwealth's large number of small dairies. Pennsylvania's draft WIP provides a compendium of available federal and state programs that bear on livestock agriculture manure and husbandry practices, and expresses the Commonwealth's intentions to expand its ability to cooperatively engage with farmers.[FN 42] However, the WIP does not adequately describe commitments to ensure that small dairies comply with the requirements of Pennsylvania's Clean Streams Law or the federal Clean Water Act. EPA notes as much in its evaluation of the Commonwealth's draft WIP; NRDC agrees with this assessment and stresses the need for Pennsylvania to provide reasonable assurance that the cumulative impact of the thousands of small dairies in the state will be redressed through binding commitments implemented in a timely fashion according to prescribed schedules.

[FN 37] See NPDES CAFO Rule Implementation Status -- National Summary, Second Quarter 2010, completed 6/30/10 (as reported by EPA Regions), attached. [Comment Letter contains additional information in the form of an

attachment. See comment 0415.1]

[FN 38] VA Draft WIP at 29.

[FN 39] See Letter from Roy Hoagland, Chesapeake Bay Foundation to Shawn Garvin, EP Region 3 Administrator, Aug. 10, 2010, with enclosures.

[FN 40] See VA Draft WIP at Table 6.4-1.

[FN 41] VA WIP Evaluation at 1.

[FN 42] See PA WIP at 64-71.

Response

EPA is committed to ensuring that all AFOs that discharge or propose to discharge have permits across the nation. EPA will continue to focus its compliance assurance and enforcement efforts in the Chesapeake Bay watershed to ensure that all CAFOs are permitted and are implementing nutrient management plans. EPA has evaluated Virginia's and Pennsylvania's final WIPs to determine if they meet the TMDL reduction goals. Fortunately, much of the concerns that EPA expressed with the draft WIPs have been addressed in the final WIPs. If any Bay jurisdiction does not achieve its 2 year milestones, EPA will take whatever measures it deems necessary to achieve the TMDL reduction goals. These measures may include expanding the CAFO universe to regulate smaller dairy operations.

Comment ID 0442.1.001.018

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

Recommendation #7: Do Not Mandate Specific Retrofit Levels in the TMDL or the Phase I WIPs

Neither the TMDL nor the state Phase I WIP documents should include reference to a specific level of stormwater retrofit for either MS4 or non-MS4 urban areas. This will allow time for the analyses recommended in Comments # 1 and #4 to be conducted before establishing specific retrofit requirements. Retrofitting requirements in future MS4 permits should consider local fiscal and physical realities.

Response

The final TMDL is heavily reliant on state WIPs for determining which sectors the necessary controls will be obtained. Stormwater controls, and to some extent retrofit of existing stormwater systems will be necessary.

Comment ID 0443.2.001.005

Author Name: Moore Shannon

Organization: Frederick County Government

The County provides the following comments on the Executive Summary of the TMDL: p.7: The EPA evaluation also concluded that none of the seven WIPs provided sufficient reasonable assurance that pollution controls identified could actually be implemented to achieve the nitrogen, phosphorus and sediment reduction targets by 2017 or 2025. The shortfalls of the WIPs, which varied by jurisdiction, included:

1. Vague or no strategy for filling recognized program or resources gaps
 2. Few enforceable or otherwise binding commitments
 3. Discrepancies between implementation levels in model input decks and strategies described in WIP
 4. Reliance on pollution trading programs but no commitment to adopt critical trading drivers such as new regulations
 5. Few dates for key actions and program-building milestones
- Frederick County agrees with EPA because we also do not believe that the actions are implementable, due to lack of coordination with regulated entities that face severe resource constraints.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0446.1.001.003

Author Name: Beegle Douglas

Organization: Penn State University

Nutrient management plans that allocate manure based on crop needs accounting for all sources of nutrients, implementation of BMPs such as no-till, cover crops, stream bank protection, and many other conservation and nutrient management practices has resulted in steady improvement in controlling nutrient pollution in the Bay. Improving management should still be a very high priority in the efforts to clean up the Bay and will continue to contribute to the objectives of the TMDL. But, ultimately improving management alone will not be enough to achieve the goals of the TMDL. In reality the success from management improvements has been the low hanging fruit. Continuing with more of the same will not likely result in a continuation of the historical progress that has been made, even with greater emphasis on requiring and enforcing improved management, which seems to be the main focus of this TMDL. A new paradigm is needed. To follow the analogy of low hanging fruit, we need a ladder (a systemic change) to enable us to

get at the higher fruit and thus achieve the goals of the TMDL. However, this TMDL, as written, focuses almost totally on requirements for changing management and implementation of BMPs to achieve the goals. Also, within the effort to continue to improve management, most of the emphasis seems to be on maximizing the gross number of acres under nutrient management and the gross number of BMPs installed. There seems to be little thought about targeting to focus on management practices that will have the greatest impact on reducing nutrients in the Bay. This was a major frustration in developing the Ag-WIP in PA because there was little or no information provided on the relative impact of different approaches in the Bay model. It seemed like the only option was the E3 scenario, even though there will likely never be adequate resources to implement the E3 scenario. Thus, there was little basis for selecting components to the WIP that would maximize the return for the cost/effort. Because of this focus on accounting for the maximum number of gross acres and BMPs, we need to be careful that TMDL does not just become a paper exercise with little change actually happening on the ground.

Response

\The Chesapeake Bay Program partnership and the agricultural community have made significant past progress towards addressing the loss of nutrients and sediments to the tidal Chesapeake Bay. The agriculture and point source sectors, including municipal waste water treatment plants, have achieved the majority of the pollution reductions to date. Agriculture continues to represent the largest managed land use within the Chesapeake Bay watershed, as well as the largest single source of nutrients and sediment entering the Bay. Consequently, the Bay states are seeking additional nutrient and sediment reductions from the agricultural sector to assist with achieving the water quality requirements of the final Chesapeake Bay TMDL through their supporting WIPs. A portion of this continued reliance by the Bay states to achieve future nutrient and sediment reductions is based on improving the targeting of resources between USDA, EPA and other State agricultural programs, including efforts on the part of conservation districts, tracking and reporting of both cost-shared and non-cost shared agricultural practices to more clearly document implementation of conservation practices by the agricultural community and efforts to identify new technical management practices that are designed to reduce nutrients and improve water quality as a priority consideration. EPA agrees that the most effective means of achieving the results, perhaps through informed targeting, would be helpful in gaining the most reductions thru the least cost. Perhaps phase 2, with an emphasis on local target loads, could help bring this issue into focus.

Comment ID 0448-cp.001.004

Author Name: Repman L.

Organization:

It would also be beneficial to consider Highway/roadway pollution control through plants. Diesel Particulate matter filters aid in reducing air pollution. I can only imagine that you know more than I, as that is your responsibility with this job position. I entrust that you will employ the use of technology and true concern for life to implement a new era for society. An era where food truly nourishes rather than slowly adding toxins, one of pure air and water.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0468.1.001.002

Author Name: Harry Jennifer

Organization: PennAg Industries Association

1. The September 2010 PA WIP was crafted using the best guidance available at the time of preparation. When the PA WIP process began, the citizens, stakeholder groups and the Department of Environmental Protection (DEP) looked to EPA for guidance in crafting the WIP. Throughout the process, EPA was and continues to be less than forthcoming and purposefully vague in their response to DEP and various DEP workgroups that have been established. In order for the State to develop a plan that is both realistic and accountable to the overall goal of restoring the Bay, EPA should have assumed a more proactive role in identifying solutions to the questions and problems.

Response

See response to Comment No. 0432.1.001.010

Comment ID 0479.2.001.004

Author Name: Gansler Douglas

Organization: Maryland Office of the Attorney General

As part of the TMDL process, EPA has requested that each state prepare a watershed implementation plan (WIP) to provide reasonable assurance to EPA that sufficient pollution reduction, from both point and nonpoint sources, will take place to meet each state's allocation. EPA intends these WIPs to be management plans under Section 117(g) of the Clean Water Act, which directs EPA's Administrator to "ensure that management plans are developed and implementation is begun ... to achieve and maintain ... the nutrient goals of the Chesapeake Bay Agreement for the quantity of nitrogen and phosphorus entering the Chesapeake Bay and its watershed, [and] the water quality requirements necessary to restore living resources 111 the Chesapeake Bay ecosystem." 33 U.S.C. § 1267(g)(1)(A)-(B).

Each Bay State also has a legal obligation to ensure that it does not contribute to a violation of downstream water quality standards. Section 122.44(d) of EPA's NPDES regulations makes clear that each NPDES permit shall include any requirements necessary to achieve water quality standards established under § 303 of the Clean Water Act. Such requirements expressly include limitations for all pollutants "which may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard"-not just those of the State in which discharge occurs. 40 C.F.R. § 122.44(d)(1)(i) (emphasis added); see also 40 C.F.R. § 122.2 ("State means any of the 50 States ...") and § 123.25 (making § 122.44 applicable to States that are authorized to implement the NPDES Program).

Unfortunately, none of the draft WIPs has met EPA expectations, and none has been found to be sufficient to ensure that upstream states do not contribute to violations of Maryland's water quality standards. For example, the strategies identified in New York's WIP would exceed allocations by 15% for nitrogen and 14% for phosphorous. Delaware exceeded its target allocations for nitrogen and phosphorous by 17% and 8%; West Virginia by 18% and 6%; and Virginia by 6% and 7%. And, while Pennsylvania met its target allocation for nitrogen, it exceeded its phosphorous target allocation by 11 %. By contrast, Maryland's draft WIP met its jurisdiction-wide target allocations for nitrogen, phosphorous and sediment.

The Clean Water Act obligates all Bay States to protect the water quality of the Chesapeake Bay and upstream states are obligated to share in the responsibility to ensure the health of this regionally, nationally, and internationally recognized treasure. See generally 33 U.S.C. § 1313. And yet, the New York, Delaware, West Virginia, Virginia, and Pennsylvania draft WIPs, I submit, are inadequate at the most basic level because they fail to identify enough regulatory, enforcement, or even voluntary strategies to ensure downstream water quality standards are met. New York, while claiming that it would be impossible to meet its allocation because of the high percentage of forested land in its watershed area, has the least aggressive standards for major wastewater treatment plants of any WIP. Pennsylvania's WIP contains no plan for addressing the cumulative impacts of non-enforcement of existing regulations for small dairy farms, and did not even specify its plans for modifying its Manure Management Manual to address the significant phosphorous imbalance from over-application of phosphorous-rich animal manure. Virginia has relied heavily on nutrient-credit trading programs in its WIP, but has not identified a sufficient framework for inspections of agricultural best management practices to ensure the proper implementation of nutrient-credit trading.

As Maryland works to incorporate the input of its residents and the constructive criticism of EPA to create a document that will provide reasonable assurances that the TMDL limits will be achieved, I urge all Bay States to do more to meet the jurisdiction-wide target allocations for nitrogen, phosphorous, and sediment that were set forth by EPA. Cleaning up the Bay will not be easy. Tough choices must be made and innovative ideas must come to the forefront. All sectors of the economy, including agriculture, must comply with best management practices and invest in developing new technologies that will make pollution reduction more efficient. In this first draft, Pennsylvania, New York, Virginia, West Virginia, and Delaware failed to make the hard choices necessary to meet allocations. Each State should revise its WIP to identify pollution reduction programs sufficient to meet EPA allocations.

Response

Overall, the final Phase I WIPs were significantly improved from the draft Phase I WIPs, with most jurisdictions not only meeting their target allocations jurisdiction-wide and basinwide, but also providing adequate reasonable assurance that those target allocations would be met. These improvements are a direct result of the cooperative work and leadership by the jurisdictions, each of which worked closely with EPA over the past few months to strengthen its WIP. This is a notable improvement from the draft Phase I WIPs, where six of the seven jurisdictions did not reach their jurisdiction-wide target allocations for all three pollutants, and no jurisdiction met its target allocations for each pollutant for each major basin within its jurisdiction.

In addition, five of the seven jurisdictions provided adequate reasonable assurance in their final Phase I WIPs that they would meet their target allocations. This also is a significant improvement from the draft Phase I WIPs, where none of the seven jurisdictions

provided adequate reasonable assurance that they would meet their respective target allocations. As a result of these improvements, EPA significantly reduced the backstop allocations for most of the jurisdictions, and in some cases completely removed the backstops.

New York is slightly over its allocations for nitrogen and phosphorus and Pennsylvania is slightly over its allocation for phosphorus. EPA has proposed backstop actions against these two jurisdictions in order to ensure that they meet their assigned allocations. These backstop actions are explained in further detail in Section 8 of the final TMDL.

Comment ID 0498-cp.001.001

Author Name: Walls Brent

Organization: Potomac Riverkeeper

Our Bay is of central importance to the region's overall environmental quality and economic future. Currently, a variety of initiatives as well as proposed legislation are under consideration as solutions to the decline of the Chesapeake Bay. These include new programs and the infusion of dramatically expanded federal resources to accelerate the restoration of the Chesapeake Bay. However, none of these programs and resources will succeed in restoring our Bay without effective and consistent implementation of the underlying existing law, the Clean Water Act ("CWA"). Unfortunately, for years all of these state/district partners have failed to adequately implement the CWA. Unless these states/this district focus attention on their legally insufficient performance, the extraordinarily important federal efforts now underway to save the Bay will have significantly less chance of succeeding.

Response

EPA agrees that it is important to fully implement the Clean Water Act. But at the same time we must all be aware of the limitations of the Act. Specifically, only voluntary, grant funding is available under the CWA for nonpoint sources. Since the bay is mostly impaired from nonpoint sources, it is important that the states and EPA find additional tools to achieve nonpoint source controls. It is for this reason that EPA is requesting the states to develop WIP that demonstrate how planned pollution controls will be achieved, particularly for nonpoint sources.

Comment ID 0504.1.001.002

Author Name: Elliott James

Organization: Citizens Advisory Committee to the Chesapeake Executive Council

CAC strongly supports enforcement and verification as key elements of the WIPs. The WIPs are a crucial complement to the Bay TMDL in allowing the jurisdictions to use their unique economies, cultures, regulatory authorities, and political structures to demonstrate how they will achieve their non-point source load allocations. The WIPs for the TMDLs must be enforceable and enforced. We believe Maryland's requirement to publish an annual report on the Department of Environment's compliance and enforcement activities is a good model that other jurisdictions should

enact through legislation. CAC would be pleased to serve as a "focus group" for MDE to test the ability of citizens to use the reported information.

Response

EPA agrees that enforcement and verification are key elements to be included in each jurisdiction's WIP. EPA reviewed each WIP to ensure that these elements were sufficiently considered in each final Phase I WIP. The results of EPA's evaluation of each jurisdiction's final Phase I WIP can be found in Section 8 of the final TMDL report.

Comment ID 0505.1.001.002

Author Name: Potter James

Organization: Maryland Chapter, American Planning Association

- Provide incentives for higher intensity development. There was a great deal of concern that development pressure in the near term could be sated with low intensity development in areas where higher density is more appropriate and better for water quality. That would leave no capacity for growth in long term scenarios where significant population growth is projected. Furthermore, pollution prevention techniques will be less traditional and more innovative/expensive for higher intensity growth solutions that will support transit and preserve open spaces. Incentives must be incorporated in Watershed Implementation Plan (WIP) guidance to encourage sustainable solutions and development consistent with EPA's Office of Smart Growth.
- Do not encourage low-density infill development. Another facet of the discussion above focused on areas with additional capacity for growth. Existing communities must be strengthened and supported to make and retain sustainable, viable urban areas. Just as in new communities or developments, low intensity, infill development is easier to permit and less expensive to build in the short run. Those types of solutions are lost opportunities to provide for a mix of housing sizes, types, and affordable options. It is also an opportunity to reduce the pollution loading from existing areas constructed when there were no or antiquated storm water regulations. All of these goals can be made more affordable by spreading the cost over more units. Encouraging low-intensity development (even by not stating the goal of high-intensity infill) raises the per unit cost of pollution prevention for communities. A function of TMDL must be to encourage an intensity of infill development that supports walkability and non-motorized transportation options as well as transit, which helps ensure that per-capita nutrient loads are low.
- Provide state-level tools for aligning Watershed Implementation Plans and goals. Any state in the Bay's watershed is competing against all the others for regional economic development opportunities. Communities within Maryland are competing with other Maryland jurisdictions for revenue generating activities like new homes and businesses. In the interest of a level playing field with regard to the costs of TMDL and pollution reduction strategies, the EPA must provide tools to coordinate WIPs across the state and watershed. These may take the form of checklists, approved technologies, common policy objectives and priorities, or guidance. All participants need to be planning under the same rules and assumptions.
- Make recommendations on how to use Smart Growth to achieve TMDL goals. The EPA must apply the best science

and land development techniques to suggest ways to achieve Chesapeake Bay water quality goals in the context of growth demands. The EPA has available to it tremendous resources that municipalities throughout the watershed lack. The EPA should capture and coordinate the expert advice of Smart Growth practitioners and researchers such as EPA's Office of Smart Growth, the National Center for Smart Growth, and the Smart Growth Network along with local groups such as 1000 Friends of Maryland, the Eastern Shore Conservancy, and numerous progressive local Planning departments. From this body of knowledge, the EPA must recommend Smart Growth strategies that will reduce pollutant loading and advance water quality goals. EPA should include differences in nutrient emissions from smart growth development compared to sprawl development in its TMDL model and permit reviews.

Response

EPA agrees with the principles of SmartGrowth and believes that careful urban/suburban planning using the principles of SmartGrowth are important tools to be used to address many of the sediment and nutrient problems within the Chesapeake Bay watershed. With each successive WIP in Phase II and Phase III, it is expected that each jurisdiction will work with its local partners to refine the allocations in the Phase I to a finer scale. Principles such as SmartGrowth EPA may be useful practices that can be utilized by Maryland in developing the finer scale allocations. EPA encourages organizations such as your's to reach out to Maryland to participate in the Phase II WIP development process.

Comment ID 0505.1.001.004

Author Name: Potter James

Organization: Maryland Chapter, American Planning Association

- Promote flexibility in the application of development ordinances and regulations to incorporate development techniques and patterns, like Smart Growth, that will improve water quality. EPA should provide technical assistance and guidance on how to implement such a program. In order to realize the benefits of Smart Growth and advanced techniques of land development such as Form-based Codes and Transfer of Development Rights, jurisdictions must be encouraged to allow them in their development ordinances and regulations. Templates, model language, complementary water quality improvements and other such guidance should be coupled with technical assistance to promote solutions that embrace innovation and adaptation to site-specific opportunities. Cookie cutters don't even work on all cookies.

Response

See response to Comment No. 0505.1.001.002

Comment ID 0505.1.001.006

Author Name: Potter James

Organization: Maryland Chapter, American Planning Association

- The Sustainable Communities Act of 2010 geographic criteria need to include site design. The State of Maryland recently enacted legislation to encourage the creation of sustainable communities. Other states in the watershed have passed or are considering similar legislation. EPA should suggest that all of the states in the Chesapeake Bay watershed include sustainability goals with site design in their criteria and Smart Growth among the recommended guidance to ensure that low-density development does not use up development capacity needed for smart growth..
- Be a strong advocate of Smart Growth to developers on behalf of individual communities, particularly those that do not have staff to provide an outreach role for themselves. Encourage states to be advocates as well. New development is the purview of private companies (developers, designers, constructors). Regulatory flexibility and enticements discussed above may not convince a developer that a sufficient market exists to build in a sustainable, environmentally responsible way. EPA must advocate for sustainable patterns of development. Where communities do not have professional staff to provide their own advocacy, EPA and the state's roles are critical to achieving an outcome that will achieve water quality goals.
- Provide targeted outreach and education support for elected officials. Traditional means of accommodating growth will always be easier, less expensive, and more expedient because it is what we are used to and what our systems are designed to support. Elected officials in jurisdictions across the watershed must be aware of the issues and advocates for change. Without elected officials leading their communities to the understanding that water quality in the Chesapeake affects and is the responsibility of everyone, these efforts will fail as previous ones have. EPA must educate elected officials about the importance, benefits, and opportunities to be gleaned from TMDL compliance.

The strategies above remove barriers to sustainability. They encourage patterns of development that facilitate water quality improvements and growth. They are designed to allow environmentally responsible development to happen and encourage developers to build it. They further help the public and elected officials join in the effort to save the Chesapeake Bay. The scale of change needed to rescue the Bay demands innovation. Accommodating growth in a context of reduction will require participation from all stakeholders. It will require leadership. The Environmental Protection Agency has been given this leadership role.

The Maryland Chapter of APA and its members feel strongly that walkable, sustainable communities complement environmental health. Air and water quality are enhanced by development patterns that discourage personal automobile use. Energy demands are reduced by clustered development, and natural areas are left to flourish. The Maryland Chapter of the American Planning Association urges EPA to use its authority to encourage Smart Growth as a tool in the cleanup of the Chesapeake Bay and as a means for environmental responsibility broadly.

Response

See response to Comment No. 0505.1.001.002

Comment ID 0516.1.001.008

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

In setting the TMDL, it is essential that there be specific plans to achieve needed reductions in nutrient and sediment loading from nonpoint sources in all 92 waterway segments and that these plans should include an implementation schedule with ongoing verification of implementation and operation to credibly document that they are making real and reasonable progress. Invoking "endangerment" and/or "anti-degradation" authorities could also be used to expand responsibility for addressing water quality impairments from agriculture as well as urban nonpoint sources.

Response

EPA agrees that an implementation schedule and verification are key elements to be included in each jurisdiction's WIP. EPA reviewed each WIP to ensure that these elements were sufficiently considered in each final Phase I WIP. The results of EPA's evaluation of each jurisdiction's final Phase I WIP can be found in Section 8 of the final TMDL report.

EPA will track the jurisdictions' progress toward achieving the gap-filling strategies proposed in their WIPs and their TMDL allocations through the jurisdictions' 2-year milestone commitments as described in Section 7.2.3 of the final TMDL report. Where jurisdictions are not meeting their commitments, EPA may use federal actions as identified in Section 7.2.4 of the final TMDL report.

Comment ID 0516.1.001.010

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

The comments above and the 25 specific measures detailed below are submitted on the draft TMDL and we would urge EPA to implement the TMDL by the end of this year and to require that these suggestions be incorporated into EPA's plans for the TMDL and by other federal agencies actions under the TMDL process and the Executive Order restoration plan. We also would urge the inclusion of these measures and requirements in state WIPs to meet the reasonable assurances requirements as you review the WIPs under the TMDL process. We believe these changes are essential to insure the Bay's restoration:

BETTER CONTROLS NECESSARY FOR AGRICULTURAL POLLUTANTS.

1) The EPA should require each state's WIP to include requirements to implement measures, including BMPs, throughout each waterway segment in your state of the 92 designated by the EPA for the entire Bay watershed. These are necessary to achieve the nutrient and sediment TMDLs by a date certain to meet "reasonable assurance" expectations. Each state's WIP should include detailed sanctions for any source that fails to meet the TMDL limits and two-year milestones. The primary proposed Federal punitive measure to address failure to achieve two-year milestones appears to be a further reduction in the waste load allocation for point sources. Point source controls are expected to

achieve their allotted nutrient reductions by about 2012. It appears illogical and unfair to punish this sector if it meets the targeted caps while leaving nonpoint sources without any realistic and certain sanctions. It would be much more effective for the EPA and each state to develop regulatory sanctions against nonpoint sources with assured enforcement.

2) Reducing nonpoint source loads from agricultural operations, including any necessary new regulations and better enforcement, should be part of each state's WIP. These must include readily enforceable mechanisms. The required "reasonable assurances" that the states will meet nonpoint source load limits dictate strong, verifiable measures to reduce agricultural nutrients and sediment loads. Assuring monitoring efforts at a reasonable scale for nonpoint source pollutants from agriculture is essential. The monitoring results should be available to the public. The implementation of Best Management Practices (BMPs) needs to be publicly reported at a parcel scale.

3) Discrete, performance-based targets for nutrient and sediment reductions from all nonpoint sources to improve water quality in each of the 92 waterway segments, including all BMPs, should be required in each WIP, and assessments of those BMPs and reduction targets should be required to be conducted by independent third-party entities to assure effectiveness and proper implementation.

Response

EPA in its review of state Watershed Implementation Plans was particularly interested in how state agriculture plans would include traditional and innovative programs, policies, legislation, and any other elements that would support proposed agriculture implementation levels that were included in modeling input decks.

Modeling input decks contained quantitative levels of best management practices which could be viewed as the underlying framework for how load reductions were calculated. In reviewing the state narrative portions of the WIPs there had to be adequate descriptions of the array of agriculture programs that then would provide reasonable assurance that for the BMPs proposed in the modeling deck there was a corresponding narrative.

Nonpoint source programs proved to be one of the most challenging sectors to achieve a high degree of reasonable assurance based on the voluntary and to a certain degree mandatory nature of programs that implement farm conservation programs.

Most states did provide a high degree of details for each program and additionally contingencies/program evaluations to track program progress. In Phase 2 state Watershed Implementation Plans will get into the next level of details for all of the individual segments that make up the Chesapeake Bay watershed.

Comment ID 0516.1.001.012

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

6) The EPA should require that all state WIPs require that on any agricultural lands that receive human sludge and/or animal waste/manure, cover crops should be mandatory for a minimum of one year after application. Even with the use of cover crops, sludge and animal waste/manure should be required to be injected or incorporated into soils within 24 hours of application. Further, the practice of human sludge or animal waste/manure application to fields with excessive phosphorus levels must be stopped. The WIP should require reducing phosphorus levels to agronomic requirements and soil tests before all applications of human sludge and/or animal waste/manure. These latter measures must be required to assure that phosphorus is not applied where not needed.

7) Greater accountability and verification of performance of agricultural BMPs is essential and the EPA must require this in state WIPs.

8) The EPA and each state WIP should mandate whole-farm water quality plans for all agricultural lands including the next generation of nutrient management, with clear targets, a reasonable implementation schedule, progress checks, and enforcement. This is critical to restoring the Bay and should be mandatory.

Response

Two of the management practices included in your letter- cover crops and better management of phosphorus as part of land application rates are very important to EPA. You may be aware of the Chesapeake Bay Executive Order's Section 502 Technical Guidance document that includes an array of agricultural management practices that address all of the components for reducing nutrients and improving water quality on farms. EPA developed the technical guidance for federal agencies in the Chesapeake Bay to use and also essentially sent a message to states in the Chesapeake Bay watershed that the suite of management practices were the ones, at a minimum, that state agencies should be aware of as programs are updated in the future.

Greater accountability and verification of planned implementation levels have been recognized by EPA as two critical elements that need to be included in state WIPs. Included in state agriculture WIPs were an array of best management practices and programs that helped achieve that 60% of the nutrient reductions by 2017 and 100% of the reductions by 2025. These management practices were reviewed and compared to the modeling input decks to assure that were complementary. EPA will continue to review the 2 year milestones that states have developed as another means to provide accountability for planned nutrient reductions programs.

Comment ID 0516.1.001.014

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

11) EPAS's TMDL process and review of WIPs should assure that measures are included for improved water quality retrofit requirements for MS4 permits and for all developed lands including road construction or reconstruction, and all such MS4 permits should be required to meet the no net increase in rate, volume, and pollutants rule. For re-development, to the maximum extent practicable, no net increase in rate, volume, or pollutants should be required for a 5-year storm and offsets required where this no net increase requirement cannot be met. Each WIP must include funding mechanisms to provide reasonable assurances that such urban retrofit will be accomplished.

12) The EPA should assure that each state's WIP includes provisions for improved water quality through systematic urban retrofits of large areas of developed lands such as shopping centers, large industrial sites, and other large impervious surfaced areas in private ownership, with mandatory measures and timelines for such retrofits.

Response

EPA published a memo in July 2010 titled "Urban Stormwater Approach for the Mid-Atlantic Region and Chesapeake Bay Watershed" which contains eleven critical elements that EPA wants to see included in all new and reissued MS4 permits. Two of the elements included in the memo are retrofitting for existing discharges and performance standards for new and redevelopment. EPA affirms that these elements be included in all MS4 permits as they are submitted by states for review and approval.

EPA review of State WIPs was very critical of state regulations and permits that were lacking retrofit requirements. This issue has been brought to the attention of individual states as a major focal point moving forward with Phase II of the WIP process and should be considered an effective tool that states use for achieving TMDL reductions.

See response to Comment No. 0035-cp.001.002 for Item No. 13 in this comment.

Comment ID 0516.1.001.016

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

15) The EPA should encourage state WIPs to require a no net loss of forest coverage in each Bay watershed of the 92 waterway segments to achieve the nutrient and sediment TMDLs by a date certain to meet "reasonable assurance" expectations. WIPs also should contain detailed measures to expand forested buffer coverage to at least 85% of all the shores of the Bay and its tributaries.

16) State's WIPs should target federal and state funds from land preservation programs for the fee simple or easement purchase of sensitive lands such as forests and wetlands on private lands and farm lands, especially those bordering the Bay and its rivers. Acquisitions should take into consideration State Wildlife Action Plans and Green Infrastructure maps that have been updated to reflect the implications of climate change and expected sea level rise.

WIPS SHOULD INCLUDE SEPTIC SYSTEM NUTRIENT REDUCTION REQUIREMENTS.

17) WIPs must include provisions that require all new and replacement on-site waste disposal systems (OSWDS) in the Chesapeake Bay watershed to be systems that utilize the best available technology (BAT) for nitrogen removal.

18) Each state WIP should include requirements for implementation of a mandatory septic inspection program for existing systems, with a requirement for a best available technology (BAT) system for nitrogen removal in failing systems.

19) Each WIP should contain requirements to evaluate existing clusters of septic systems for connection to centralized sewage treatment that uses Enhanced Nutrient Removal (ENR).

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0516.1.001.019

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

BETTER CONTROLS NECESSARY TO REDUCE NUTRIENTS FROM WWTPS IN WIPs.

22) All Wastewater Treatment Plants (WWTPs) should be required to meet nutrient discharge limits of no more than 3.0 mg/l Nitrogen and 0.3 mg/l Phosphorus and these should be included in WIPs.

23) Each state WIP should allocate WWTP pollution loads based on 2010 wastewater flows, assuming a concentration of 3.0 mg/l of nitrogen and 0.3 mg/l of phosphorus. Any increased nitrogen or phosphorus loads with flows beyond 2010 actual flow levels must be offset with equal or greater reductions from other sources.

24) Each WIP must aggressively address and fund infrastructure upgrades to prevent and treat combined sewer overflows.

25) The EPA should act to adopt measures to assure that existing Clean Water Act and other water quality laws are fully enforced, including at all WWTPs, and each WIP should adopt necessary measures to assure such enforcement.

Response

See response to Comment No. 0034-cp.001.001. Also, EPA agrees that the Clean Water Act need to be fully enforced. States and EPA heavily rely on the regulatory provisions of the Clean Water Act to regulate WWTPs. This too will continue to be key in our efforts to realize the nitorgne and phsophorous loading levels we seek for the Bay.

Comment ID 0516.1.001.021

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

13) Measures to reduce or eliminate fertilizer usage on residential lawns, golf courses, and public lands should be

included in state's WIPs, including measures to prohibit phosphorus in fertilizers sold for maintenance of such properties.

Response

See response to Comment No. 0035-cp.001.002

Comment ID 0536.1.001.002

Author Name: Belin Hedrick

Organization: Potomac Conservancy

Pollution from urban growth is the one source of nitrogen and phosphorous that is headed in the wrong direction. As the States create their Watershed Implementation Plans (WIP), the EPA should give particular scrutiny to their efforts to minimize pollution from future growth and development.

Response

EPA agrees that future growth must be considered by jurisdictions as part of their WIPs. EPA reviewed the final WIPs for each jurisdiction against EPA's expectations outlined in its November 4, 2009, WIP expectations letter sent to each jurisdiction as well as the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. The results of the final WIP evaluations can be found in Section 8 of the final TMDL. Because the final WIPs are improved from the drafts, EPA has removed or reduced the backstop allocations for wastewater treatment plants.

Comment ID 0586.1.001.007

Author Name: Fischer Micaela

Organization: The Pew Environment Group

Improvements Needed

From our review of the individual state WIPs, we conclude that the state plans-even supplemented by EPA's backstop proposal-are not strong enough to achieve significant pollutant reductions from CAFOs and the manure generated by intensive livestock confinement in the region.

In discussing reductions from the agricultural sector, the state WIPs summarize existing programs and discuss the need for additional resources to assist farmers with preparation of nutrient management plans and share costs for manure storage facilities, stream fencing, cover crops, manure transport and other best management practices. Several assume significant increases in such practices to achieve large percentages in reductions, but for the most part do not identify

specific new funding sources to assure that farmers will voluntarily adopt additional management measures. Virginia's WIP stresses nutrient trading but does not offer the needed detail on verification and accountability that such a program would require. Maryland's WIP notes that it is considering changes in the use of the phosphorus index but does not yet commit to that positive step. Delaware's WIP acknowledges the need to consider future growth of animal waste, but it presumes, we believe wrongly, that an expected decline in the number of farms negates any need to plan reductions around further increases in livestock numbers or in livestock concentration in areas with excess manure.

Overall, the WIPs and the backstops proposed by EPA build incrementally on existing programs, many of which are needed and worthwhile, but will not, of themselves, provide the level of pollutant reductions needed. The TMDL is necessary because decades of programs using traditional Clean Water Act approaches have not restored the Bay. By definition, then, the TMDL and the WIPs that lay out how it will be implemented must be ambitious and innovative. They should, of course, incorporate the best of the programs that the states and EPA have developed to date, but in order to be successful, they must go beyond those efforts.

When it comes to agriculture in general and CAFOs in particular, we recommend new priorities and approaches.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0586.1.001.009

Author Name: Fischer Micaela

Organization: The Pew Environment Group

- Improve Controls on Application of Manure to Cropland

Several states have worked to control releases associated with the use of manure as fertilizer, but those efforts have not been enough. Though nutrient management plans are required by a large segment of the agriculture community in Maryland, Delaware and elsewhere, and some states report high levels of compliance, releases are still unacceptably high overall. The nutrient management plans are a central linchpin for good environmental management, but USDA's own report on the Chesapeake Bay notes that some plans are inadequate on the fundamentals of timing, rate, form and method of fertilizer application, and USDA and others [FN8] have noted that some nutrient management plans in the region are still based on nitrogen and, therefore, sanctioning possible over-application of phosphorus. The Bay states, along with EPA and USDA, must commit to re-evaluating the currently acceptable methods of developing nutrient management plans and assure that deficient plans are corrected expeditiously. In addition, EPA's backstop measures for CAFOs should address manured cropland as well as CAFO production areas.

- Restrict or Eliminate Manure Application in Phosphorus Saturated Soils

As noted above, technical experts have raised concerns that farmers may be applying manure in sensitive areas, either based solely and inappropriately on nitrogen management or based on phosphorus management protocols that fail to consider the potential for non-erosion related releases of the pollutant. If this is the case in even a portion of the watershed, the soil "sink" of phosphorus that is being created will become a new long-term source of pollutant that will

be exceedingly difficult to control. We believe that there is an urgent need to better understand and address the buildup of phosphorus in Bay watershed soils, and urge EPA, USDA and the states to convene an expert panel to assess the status of soils in the watershed, develop plans for tracking trends in soil saturation, and assure that appropriate steps are taken to restrict or eliminate manure application in saturated areas.

[FN8] Caitlin Kovzelove, Tom Simpson, and Ron Korcak, "Quantification and Implications of Surplus Phosphorus and Manure in Major Animal Production Regions of Maryland, Pennsylvania, and Virginia" (Water Stewardship, Inc, February 2010), http://waterstewardshipinc.org/downloads/P_PAPER_FINAL_2-9-10.pdf.

Response

EPA in developing its program technical guidance under section 502 as part of the Executive Order for the Chesapeake Bay included for federal lands guidance that underscored not applying organic fertilizer to cultivating lands should the level of phosphorus soil concentration be above 20 percent. The technical guidance document was developed based on input from well recognized Chesapeake Bay scientists who based upon literature results and practical experience developed a series of important management practices that may be used as EPA develops its Chesapeake Bay CAFO regulation.

EPA is also aware of concerns associated with the over application of poultry litter based on acceptable application rates that are supported by each states' Phosphorus Site Index. In several areas throughout the watershed geographic hot spots were elevated levels of nutrients have been recorded support the fact that the P Index needs to be updated in the very near future. One of the traditional problems associated with how P soil levels increase is the limited accountability of state NMP for grain farmers who can fairly easily apply much larger amounts of poultry litter on corn as an example to achieve higher levels of production.

EPA continues to work with several USDA agencies who have technical responsibilities to develop technical standards for the agricultural community many of which direct water quality impacts to the Chesapeake Bay.

Comment ID 0586.1.001.012

Author Name: Fischer Micaela

Organization: The Pew Environment Group

We also recognize that the Bay states have adopted a variety of programs, including important initiatives to require nutrient management plans from many agricultural producers, track manure shipments, support alternative uses of manure, address release of pollutants to groundwater and take special efforts to maintain high quality waters. These efforts have been important steps in Bay restoration, but more work remains. Unfortunately, the draft WIPs do not yet provide the specific plans for technical standards and technical assistance, financial incentives, regulatory programs and compliance and enforcement strategies that are needed for the next level of effort called for by the Bay Agreement and the TMDL.

Response

See response to Comment No. 0034-cp.001.001

Comment ID 0590.1.001.004

Author Name: Chavez Jennifer

Organization: Earthjustice et al.

3. Evaluation of State WIPs: EPA irrationally and incorrectly classifies the District of Columbia's WIP as having "some" rather than "serious" deficiencies. The proposed WIP provides for only 60% of the sediment reductions needed to meet the TMDL's 2025 target. DC WIP at 17. A plan that fails to provide for almost half of the reductions needed to implement the TMDL is severely deficient, and warrants imposition of the full range of federal backstop measures. At the very least, given that a major portion of the District's sediment load is from MS4 discharges, EPA must require the same or greater level of pollution control for urban MS4 lands as EPA has proposed for moderate and high-level backstop states. Moreover, to the extent this shortfall is attributable to deficiencies in the Maryland WIP (because of upstream sediment loads from Maryland to the Anacostia and Potomac Rivers), EPA must classify the Maryland WIP as seriously deficient as well.

Response

EPA found the draft Phase I DC WIP to be deficient, and agrees that the original sediment gap was significant. In the interim the District has worked to remedy that deficiency, and the final Phase I WIP submitted on November 29, 2010 no longer contains a sediment gap.

Comment ID 0638-cp.001.002

Author Name: Comment Anonymous

Organization: National Wildlife Federation Action Fund

By the way, there are some easy ways to reduce pollution and help the economy at the same time. For example, requiring all manure from agricultural operations to be used to make biogas to run small power plants or produce heat, and not simply left in lagoons would drastically reduce pollution, produce energy, and reduce greenhouse gases. It is incomprehensible that this is not required.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0654.001.003

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

2. Tyson supports the use of Nutrient Management Plans (NMP) as a necessary component of environmentally sound land application practices. Moreover, Tyson believes that all sources of nutrients, including commercial fertilizer, should be land applied according to a NMP. The Bay states have passed laws and implemented regulations requiring that poultry litter utilized as an organic fertilizer be land applied pursuant to site-specific NMPs. EPA's TMDL does not appear to contemplate NMPs governing commercial fertilizer applications. EPA should encourage Bay states to develop NMP requirements for commercial fertilizer users.

Response

Currently, EPA does not have the statutory authority to regulate fertilizer. However, under EPA's CAFO program, fertilizer is taken into consideration as a source of nutrients when developing rates of manure application in a NMP.

Comment ID 0687.001.001

Author Name: Comment Anonymous

Organization:

1. What happened to the 5% Reserve originally required by EPA (to offset model updates underway but not complete) to be included in the WIP to account for modeling updates?

2. Regarding the 5.3 Model:

a. When will a revised version (i.e., 5.3 Model) be published that incorporates the urban land area revisions currently being peer reviewed?

b. How do these areas compare with the numbers released to the public on May 25,2010:
[Please see table 2.b. on page 1 of the original letter (EPA-R03-OW-2010-0736-0687)]

c. What will the effect of these new areas be upon the current loading rates of:
[Please see table 2.c on page 1 of the original letter (EPA-R03-OW-2010-0736-0687)]

d. What effect do you expect this will have on Sector Load Allocations in Phase II?

e. When will the Phase 11 WIP allocations be provided to the public?

Response

1. The 5% temporary reserve was intended to be returned to the states after the models were updated. However, based on public comments received, with the final TMDL, EPA has chosen to dismiss with the reserve concept. So the full allocation has been

provided to the states with no reserve.

2a. The revised p5.3 model with urban land revisions is scheduled to be released in the spring of 2011.

2b. The revised urban areas are still under review so the comparison can not be made yet other than to say that it is very likely that the urban areas will be increasing, especially in lower density areas.

2c. The effect of new urban acreage on loading rates must be estimated based on existing data. Since the overall loads are calibrated to in-stream data, the overall loads will be relatively consistent and therefore it is likely that average loading rates for all land use types will decrease slightly.

2d. Many factors other than the updated model may have an effect on the phase II sector loads, so it is not possible to accurately predict the effect.

2e EPA will announce the schedule for the Phase II WIPs in early 2011.

Comment ID 0689.1.001.017

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

27. Since EPA places significant weight on the WIPs, these plans should be part of the TMDL itself and subject to public comment and response by EPA.

Response

The WIPs inform the Chesapeake Bay TMDL and how the Bay watershed jurisdictions plan to implement the TMDL. As described in Section 7 of the TMDL, although the WIPs are part of the accountability framework, they are not part of the TMDL itself. As the WIPs were drafted by the jurisdictions and describe actions to be taken by the jurisdictions, comments and responses thereto are more appropriately addressed to the jurisdictions. Comments regarding the manner in which EPA evaluated the WIPs and how the WIPs factor into the TMDL and the accountability framework are properly addressed to EPA; the Agency is responding to these comments and is incorporating them into the final TMDL as appropriate. Also please see response to comment 0737.001.005.

Comment ID 0737.001.005

Author Name: Comment Anonymous

Organization: Lower Allen Township Authority

WIP Attachment - EPA has stated the TMDL is dependent on and supported by the state WIPs but failed to attach the

WIPs to the TMDL. The final TMDL should contain copies of all final WIPs as attachments .

Response

Each jurisdiction's WIP will be available through EPA's website at <http://www.epa.gov/chesapeakebaytmdl/>, and their location will be identified in the final TMDL document. Due to the size of the documents, they will not be included as attachments to the final TMDL.

Comment ID 0761.001.002

Author Name: Sarbanes John

Organization: Congress of the United States, House of Representatives

I also want to draw your attention to legislation I recently introduced, the Save the Bay Homeowner Act of 2010 (H .R. 6382), which would allow the 17 million citizens of the Chesapeake Bay watershed to become citizen stewards of the Bay and give them an active role in restoring it. I hope you will include a similar approach in the final TMDL rule.

H.R. 6382 directs the EPA to develop a "Save the Chesapeake Bay Home" designation program that identifies various steps homeowners could voluntarily take around their property to reduce nutrient and sediment runoff and improve water quality in local streams and rivers that feed into the Bay. If a participating home meets certain standards, as developed by the EPA, that home could be designated a "Save the Chesapeake Bay Home." The bill further directs the EPA to give credit to states and local jurisdictions for nutrient and sediment level reduction based upon the number of homeowners that achieve the "Save the Chesapeake Bay Home" designation.

I would urge the Environmental Protection Agency to develop a "Save the Chesapeake Bay Home" designation program in the process of finalizing the Chesapeake Bay TMDL. As state and local governments look for tools to meet new nutrient reductions standards, programs like this can offer new innovative and cost effective ways to help communities meet these requirements. By engaging the millions of people living within the watershed to become citizen stewards of the streams and rivers in their community, we can make additional strides toward truly saving the Chesapeake Bay.

Response

While the TMDL itself does not include implementation strategies, innovative tools such as that proposed in your comment, are what is needed to realizing a restored Bay. . Each jurisdiction is responsible for developing a WIP and identifying regulations, BMPs or other implementation strategies within its WIP for meeting the pollution allocations under the TMDL. As EPA considers future modifications to the TMDL as part of the Phase II and Phase III WIPs, EPA will encourage jurisdictions to implement tools such as those proposed in your comment. Thank you for supporting the efforts to restore the Chesapeake Bay.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 21. TMDL Allocations

Pages 1800 – 2064

21.0. TMDL Allocations	Pages 1800 – 1814
21.1. Full Backstop Allocations	Pages 1814 – 1940
21.2. Hybrid WIP Backstop Allocations	Pages 1940 – 1954
21.3. General/Miscellaneous	Pages 1954 – 2064

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

21 - TMDL ALLOCATIONS

Comment ID 0184.1.001.004

Author Name: Hively Christopher

Organization: Town of Culpeper, Virginia

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

EPA respectfully disagrees with the commenter's assertion that the draft Chesapeake Bay TMDL is fundamentally and materially flawed. Under the Clean Water Act and existing TMDL regulations, EPA is required to use the best available data and information. Building upon decades of Chesapeake Bay region focused scientific investigations, monitoring of the Bay's tidal waters, watershed and airshed since early 1980s, tracking of implementation practices and technologies for the past 25 years, and application of continually upgraded modeling tools by the partnership since the 1980s, the Bay TMDL was developed consistent with these requirements.

Regarding your request to consider VAMWA's comments, EPA has fully addressed VAMWA's comments in their entirety in the responses to comments 0288.1.001.001 thru 0288.1.001.036 and 0288A01.001.001 thru 0288.A51.001.001.

Comment ID 0196.1.001.003

Author Name: Moffett Jesse

Organization: Frederick-Winchester Service Authority

The Frederick-Winchester Service Authority maintains that the Draft TMDL is fundamentally and materially flawed from its Bay Model and its continual refinements to its vague and undefined reasonable assurance criteria. We believe these deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by

the States and consideration of comments including this one. Please see Section 8 and the response to comment 0184.1.001.004.

Comment ID 0198.1.001.008

Author Name: Covington Roy

Organization: Chesterfield County, Virginia

We understand that the Draft TMDL is fundamentally and materially flawed as a technical matter, especially with regards to the James River components. Serious chlorophyll standard and computer modeling deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

Please see the response to comment 0184.1.001.004.

Comment ID 0203.1.001.004

Author Name: Weindel Uwe

Organization: Frederick County Sanitation Authority

We believe that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

Please see the response to comment 0184.1.001.004.

Comment ID 0206.1.001.004

Author Name: Vass Evan

Organization: Town of New Market, Virginia

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We

request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

EPA disagrees with the comment. Please see the response to comment 0184.1.001.004.

Comment ID 0209.1.001.004

Author Name: Saunders Thomas

Organization: Town of Kilmarnock, Virginia

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

Please see the response to comment 0184.1.001.004.

Comment ID 0213.1.001.004

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

Proposed Backstop Allocations are Unfair Particularly in the James River Basin: The proposed backstop allocations for POTW dischargers are included in the draft Chesapeake Bay TMDL because EPA does not believe Virginia's WIP provides "reasonable assurance" that nonpoint discharges will meet allocations. In the James River Basin, only 17% of the agriculture nitrogen controls have been met. Yet, EPA has proposed what it has termed "moderate" reductions to Virginia's WIP POTW allocations to achieve the nutrient compliance goals rather than expecting a high level of effort from the agricultural sector. EPA should allocate point and nonpoint sources in an equitable manner.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0215.1.001.008

Author Name: Milo J.

Organization: Maury Service Authority (MSA)

We understand that the Draft TMDL is fundamentally and materially flawed as a technical matter, especially with regards to the James River components. Serious chlorophyll standard and computer modeling deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

EPA disagrees with the comment. Please see the response to comment 0184.1.001.004.

Comment ID 0224.1.001.003

Author Name: Fiala Barbara

Organization: Broome County Executive's Office

The communities of New York State that comprise the headwaters of the Susquehanna and Chemung River watersheds have long recognized their role as partners in the restoration of the Chesapeake Bay. In acknowledgment of that role, New York State has made great strides to improve water quality through stringent regulations and programs in the areas of stormwater pollution prevention and agricultural environmental management, exceeding those mandated by the federal government. As a result, New York State water quality far exceeds that of other jurisdictions in the Chesapeake Bay watershed.

EPA's proposed TMDL imposes disproportionately heavy restrictions on New York. If other states reached the level of performance achieved in New York over the past decade for nitrogen and phosphorous, there would be no need for a TMDL. Even if other states in the watershed achieve their mandated allocations, their water would still contain more nitrogen and phosphorous than New York at present.

Response

Please see the response to comment 0080-cp.001.002

Comment ID 0226.1.001.001

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

In general, we believe that the establishments of numeric TMDL based limits for the Chesapeake Bay are inappropriate because of the Bay's large geographic scale and the uncertainties associated with setting the load limits, in particular for nonpoint sources (stormwater, agricultural, forestry, etc.).

Response

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Comment ID 0231.1.001.013

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

Incorporation by Reference

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

Please see the response to comment 0184.1.001.004.

Comment ID 0284.1.001.004

Author Name: Shwed John

Organization: Town of Laurel, Delaware

It appears to us that waste water treatment plants are the low hanging fruit which government can regulate much easier than finding solutions to reductions in nitrogen and phosphorous from other sources in Delaware. I encourage the Federal EPA and DNREC to continue dialogue with us and our sister Western Sussex towns so that we might reach an equitable agreement on a path forward.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its jurisdictional partners in order to achieve this.

Comment ID 0287-cp.001.002

Author Name: Ristow Aaron

Organization: Upper Susquehanna Coalition

2. TMDL regulation imposes disproportionately heavier restrictions for water quality in NY in order to help other states meet their overall TMDL goal. Even if the other states achieve their EPA mandated allocations by 2025, their water would still contain more N and P (per unit volume) than NY has at the present.

Response

Please see the response to comment 0080-cp.001.002.

Comment ID 0298.2.001.018

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

In 2005, the EPA entered into a Tributary Strategy Agreement which Included TMDLs in the James River Basin. These Strategies will result in pollutant reductions that will amount to 96% of the reductions incorporated in the Tributary Strategy.

In the absence of an accurately calibrated CBWM, verifiable model inputs, and predictions within an acceptable range of uncertainty, EPA should establish the allocations for the James River watershed in the TMDLs based upon the James River Tributary Strategy.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0303.1.001.007

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

Please see the response to comment 0184.1.001.004.

Comment ID 0315.001.003

Author Name: Scott Edward

Organization: Commonwealth of Virginia

Reduction allocations must be science-based and within the realm of today's technology.

Response

Under the Clean Water Act and existing TMDL regulations, EPA is required to use the best available data and information. Building upon decades of Chesapeake Bay region focused scientific investigations, monitoring of the Bay's tidal waters, watershed and airshed since early 1980s, tracking of implementation practices and technologies for the past 25 years, and application of continually upgraded modeling tools by the partnership since the 1980s, the Bay TMDL was developed consistent with these requirements. Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Comment ID 0321.1.001.005

Author Name: Fanfoni Kenneth

Organization: Augusta County Service Authority, Verona, Virginia

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

EPA disagrees with this comment. Please see the response to comment 0184.1.001.004.

Comment ID 0324.1.001.004

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

We understand that the Draft TMDL is fundamentally and materially flawed. These deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

Response

Please see the response to comment 0184.1.001.004.

Comment ID 0378.1.001.003

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

In determining what is fair, reasonable and achievable, EPA and DEP need to consider several embedded questions:

- As part of the big picture, how much does each sector contribute to loadings received by the Bay?
- What measures has each sector already taken to reduce its loadings?
- What steps, commitments, and investments are already in progress - and how will potential changes in direction impact those public and private commitments and investments?
- How well do we understand the existing loadings from each sector or subsector, and the sources of those loadings?
- How will the proposed loading limits impact citizens, taxpayers and business owners - are they affordable, or will they

cause community distress, job and investment losses, and unacceptable economic dislocation?

- Within each source sector, are there truly viable actions that can be taken in a cost-effective manner - and then what does it really take to implement those actions, in terms of steps along the way, financial resources, and timing?

One of the observations one might make about some elements of the Pennsylvania WIP and, even more so, the EPA Backstop TMDL, is that some of these questions appear to be unasked and unanswered. Amid extensive prose concerning modeling and descriptions of various governmental programs, these key questions are all too often left unaddressed in a way that allows for thoughtful selection.

Response

Thank you for those comments. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002.

Comment ID 0382-cp.001.004

Author Name: Combs Tina

Organization: Chamber of Commerce, Martinsburg and Berkeley County, West Virginia

The nitrogen, phosphorus and sediment discharge allocations are estimated by algorithmic modeling conducted by an EPA contractor. No direct scientific evidence proves that West Virginia point source discharges impact the Bay or that the assigned allocations will be effective in restoring and protecting the Bay. We believe sound science is needed before wasting millions of dollars in public monies on an inadequate or inappropriate solution to the problem.

Response

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0439.1.001.001

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

New York State Has Been Proactive in Improving Water Quality of the Susquehanna

NYACD is very concerned of the effects that the proposed TMDL would have on the State of New York. For the past 10 years or so, New York has taken a proactive approach to sending clean water to the Chesapeake Bay, with the formation of the Upper Susquehanna Coalition (USC) which is a group of 16 Soil and Water Conservation Districts (SWCDs) aimed at partnering to improve natural resources in the basin, with a commitment to continue to do so. Because of the proactive work of the USC, the partnering SWCDs, and other partners such as NRCS, the water leaving New York and being tested in Towanda, PA, is deemed to be healthy. Therefore, if each of the Bay states had New York's current water quality, as it is in Towanda, nutrient and sediment problems would be nonexistence in the Chesapeake Bay, and the Bay would be healthy.

New York Being Treated Unfairly: All States in the Basin Need to be on a Level Playing Field

That being the case, NYACD is asking that New York be treated more fairly in terms of the TMDL and the Watershed Implementation Plan, and be given credit for the proactive work that has been done.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations and refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0439.1.001.009

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

While NYACD understands the importance of restoring water quality to the Bay, it must be done so in a realistic and fair manner. The draft TMDL allocations are unattainable for New York to achieve, based on the health of the water currently leaving New York, and the strength of the programs already in place.

Response

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0439.1.001.011

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

Please put New York on a level playing field with other states in the Bay watershed, and please account for the proactive approach New York has implemented in regards to natural resource management.

Response

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0528.1.001.016

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

VIII. RECOMMENDATIONS

Spotsylvania recommends an evaluation of current BMPs to establish the existing conditions base loads that should be controlled by the draft TMDLs. The current information offered by EPA has many potential flaws. The draft TMDLs are based upon dated information that, while useful for planning purposes, is not appropriate for use as detailed requirements and limits.

Response

EPA respectfully disagrees with the commenter's assertion that the draft Chesapeake Bay TMDL has many potential flaws. Under the Clean Water Act and existing TMDL regulations, EPA is required to use the best available data and information. Building upon decades of Chesapeake Bay region focused scientific investigations, monitoring of the Bay's tidal waters, watershed and airshed since early 1980s, tracking of implementation practices and technologies for the past 25 years, and application of continually upgraded modeling tools by the partnership since the 1980s, the Bay TMDL was developed consistent with these requirements. Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Please see the response to comments 0648-cp.001.002 and 0238-cp.001.002 regarding BMP credits for water quality improvements.

Comment ID 0529.1.001.003

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

In general, it appears that the Draft Chesapeake Bay TMDL provides a waste load allocation for municipal separate storm sewer systems but not for industrial or construction storm water sources. It is our understanding that EPA's designation is in error and that EPA intended for its waste load allocation to include all three sources of storm water loading.

Response

EPA identified expectations and a guide for the contours of the WIPs and asked the jurisdictions to submit WIPs to support their recommendations for EPA's TMDL allocation decisions for various pollutant loading sectors. EPA reviewed the WIPs to determine if they provided adequate reasonable assurance to support the jurisdictions' recommended allocation scenario. Where EPA determined that those WIPs provided adequate reasonable assurance and met the jurisdictions' respective pollutant cap loadings, EPA used all (or those parts found adequate) as the basis for its TMDL allocations for that jurisdiction.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. If a jurisdiction's WIP provided wasteload allocations to a particular sector such as municipal separate storm sewer systems, industrial or construction storm water sources, then those wasteload allocations would be incorporated into the final TMDL by EPA. Please see Appendix Q and R for more detailed allocation information for annual TMDLs and daily TMDLs, respectively.

Comment ID 0529.1.001.004

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

Unfortunately, since the Draft TMDL does not document the total nitrogen, total phosphorus and sediment allocations for the Baugher Farm storm water point source, INVISTA cannot comment on the appropriateness of the allocations other than to say that zero allocations are not feasible. The Virginia General Industrial Storm Water permit currently issued for Baugher Farm has a limit of 100 mg/l Total Suspended Solids for storm water discharged to streams with a Virginia TMDL. The South River currently has a Virginia developed TMDL for benthic organisms (sediment and phosphorus), and bacteria.

EPA must correct the Draft TMDL to reflect its error and should include an explanation as to how it assigns the allocations. This missing information further emphasizes the need for EPA to reissue a corrected Draft TMDL with a more appropriate 90-day comment period.

I appreciate the opportunity to comment on the EPA's Draft Chesapeake Bay Total Maximum Daily Load (TMDL). If you have questions or comments, please do not hesitate to contact me or Brenda Kennell (for technical comments) at the address on the letterhead.

Response

Final TMDL allocations were based on each jurisdiction's WIPs. Regarding specific comments on a jurisdiction's WIP, please refer to the response for comment 0034-cp.001.001. Please see Appendix Q and R for more detailed allocation information for annual TMDLs and daily TMDLs, respectively.

For waters that have both local TMDLs and Bay TMDLs for nitrogen, phosphorus, and sediment, the more stringent of the TMDLs will apply. In some cases, the reductions required to meet local conditions shown in existing TMDLs may be more stringent than those needed to meet Bay requirements, and vice versa. Local TMDL requirements must still be met in addition to these new TMDLs.

EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these suggested revisions and where appropriate, has incorporated them into the final TMDL report. Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Regarding your request to reissue the Draft TMDL and extend the comment period, please see the responses to comments 0062.1.001.004 and 0060.1.001.001.

Comment ID 0535.1.001.003

Author Name: Perkinson Russ

Organization: Virginia Department of Conservation and Recreation

Subsector Equity of Stormwater Allocations

Several subsectors exist for the urban stormwater source sector category. For equity reasons, it is important that EPA's allocations fairly distribute the load among these subsectors.

Recommendation: For any EPA allocations or backstops to urban stormwater, the allocations need to apply equitably across regulated urban stormwater subsectors such as MS4 permits and Industrial Stormwater permits.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0545.1.001.004

Author Name: Friedman Suzy

Organization: Environmental Defense Fund (EDF)

Finally, EPA included "backstop allocations" in the TMDL to assure that attainment will be achieved in the event that States fail to demonstrate reasonable assurance of timely achievement of their allocations through WIPs. Although not the preferred choice for States or EPA, the backstop allocations perform a necessary function of filling in where Bay States fail to promulgate adequate WIPs. We note that EPA continues to work with Bay States to revise their draft WIPs, providing additional opportunity for States to strike the balance themselves in determining load and waste load allocations for point sources and non-point sources. [FN5]

[FN5] We encourage EPA to continue working with New York. New York is, in some ways, uniquely situated with not only a smaller, but also declining, population base over which to spread compliance costs.

Response

Please refer to the response for comment 0246.1.001.004. EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals.

Comment ID 0568.1.001.005

Author Name: Eisel James

Organization: Delaware County, New York

Population trends, pollution contributions and equity

It is important to note some important differences between the New York portion of the Chesapeake Bay and the watershed as a whole. According to the Chesapeake Bay Program, 16.6 million people live in the Chesapeake Bay watershed and this number increases by approximately 170,000 people per year. [FN2] In contrast, New York's Southern tier has a stable or slightly declining population currently estimated at 629,767 residents or approximately 3.79% of the basin population. The Chesapeake Bay watershed covers roughly 64,000 square miles. [FN3] Around 6262 square miles, [FN4] or 9.78% of the basin's land mass, are New York State lands. Based on these statistics, population density the New York portion of the watershed, including Delaware County, has been in the neighborhood of

101 persons per square mile since 2000, the year we agreed to participate in the Chesapeake Bay Program. In contrast, tidal portions of the watershed have experienced significant growth over that same time period, to an average population density of 276 persons per square mile. With denser human populations, there is a corresponding increase of infrastructure and human waste, both of which increase N and P contributions to the Chesapeake Bay. This is reflected in changes in water quality of the same time frame. The Chesapeake Bay Program sought New York's cooperation in its efforts to restore the bay in 2000. Since that time N and P contributions from New York State, recorded at the Towanda monitoring station, have dropped 2.44 million pounds and .08 million pounds per year respectively. During that same time, a number of monitoring stations in tidal states reported increases in P and N contributions. [FN5] It is clear to us that differences in population and land use between the headwaters and tidal areas of the basin are in large part responsible for this. To our surprise and dismay, New York is being asked to accept disproportionately heavier restrictions than tidal states--the same states that grew in population, developed area, and pollution contributions while New York did the opposite! Much has been made of the importance of the Chesapeake Bay as an example for other large, complex watersheds such as the Mississippi. What kind of message does this TMDL really send to states in those watersheds? From the outside, it must appear that the best way to avoid a larger share of the regulatory burden under a TMDL is to grow as fast as possible, in as irresponsible a manner as possible, as soon as you hear that a TMDL is imminent. If the Chesapeake Bay TMDL proceeds as written, you can be sure that other states, counties and municipalities will take notice, and realize it is not in their best interest to be proactive in improving water quality the way that we were.

When pressed about the blatant inequities of this situation at the October 27th meeting of the Upper Susquehanna Coalition, EPA staff insisted that this was the only way to get tidal states to agree to the TMDL. We reject the idea that headwaters communities deserve to be punished as a requirement of the Chesapeake Bay Program's success. As we have experienced in our interactions with NYC, it is easy for regulatory agencies to place the burden of water quality protection on headwaters communities with low population and low income, because their lack of resources makes it difficult for them to fight for a fair deal. Tidal states stand to gain the most from improving the health of the Bay. They ought to accept an equitable share of the responsibility for its cleanup.

[FN2] Chesapeake Bay Facts & Figures at <http://www.Chesapeakebay.net/factsandfigures.aspx>

[FN3] Chesapeake Bay Facts & Figures at <http://www.Chesapeakebay.net/factsandfigures.aspx>

[FN4] Susquehanna River Basin Commission Sub-basin Information at <http://www.srbc.net/subbasin.html>

[FN5] Trends and Status of Flow, Nutrients, Sediments for the Selected Nontidal Sites in the Chesapeake Bay Watershed 1995-98

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 for discussion of the revised allocations and Final New York WIP and see the response for comment 0080-cp.001.002 regarding New York allocations.

21.1 - FULL BACKSTOP ALLOCATIONS

Comment ID 0038.1.001.018

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

The state government has had its chance to prove that it could affect real change and has shown that it cannot. It is time for the EPA to step in and hold the state to a higher standard.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0057-cp.001.004

Author Name: Abel Katie

Organization:

If Virginia does not create WIPs that push all stakeholders to take responsibility for the effect of their actions on the watershed, then I support the EPA stepping in to ensure success.

Response

Thank you for the supporting comment. Please refer to the response for comment 0246.1.001.004.

Comment ID 0067.1.001.009

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

While the Pennsylvania WIP tries to allocate reductions fairly among all sectors, EPA has taken a posture that we believe is irrational, unattainable, arbitrary and counterproductive. In its comments dated September 27, 2010, EPA has purported to find that the Pennsylvania WIP is deficient in failing to provide "reasonable assurance" that the reductions would be achieved in all identified sectors. In particular, EPA claims that the actions identified to address non-point sources, such as agriculture, stormwater, forests and on-lot septic systems, were not adequately described or sufficient. To address these "gaps", EPA has proposed what it calls a "Back Stop TMDL." Rather than framing actions to address the sectors that purportedly are not doing their share, EPA proposes to shift the burden of reductions from these non-point sectors to municipal treatment plants and industries.

Under EPA's proposed Backstop TMDL, EPA proposes to push every municipal treatment plant to the "limits of technology" and beyond that proposes allocations to industries (such as the GTP Facility) that are well beyond any known technology. EPA has described the limits of technology for POTWs as achieving 3 mg/l of nitrogen and 0.1 mg/l

of phosphorus - although there are in fact very few treatment plants in the U.S. that have achieved those concentrations consistently.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. EPA incorporated federal backstop measures into the draft TMDL because of deficiencies in the majority of draft Phase I Watershed Implementation Plans (WIPs) submitted by the states and District of Columbia in September 2010. Most of these draft Phase I WIPs did not identify programs to sufficiently reduce pollution to meet TMDL allocations and provide assurance the programs could be implemented. As a result, EPA's backstop measures in the draft TMDL focused on tightening controls on federally permitted point sources of pollution, such as wastewater treatment plants, large animal agriculture operations and municipal stormwater systems.

Although a number of backstop options existed, EPA primarily relied on decreasing the WLAs to the point sources in the draft TMDL. EPA did that because point sources are the pollutant discharging source sector for which the CWA gives EPA the clearest authority to ensure implementation of needed controls. Because EPA determined that the jurisdictions' draft Phase I WIPs did not achieve the target allocations or did not provide adequate reasonable assurance, EPA provided draft TMDLs with backstop allocations that reduced the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions' draft Phase I WIPs addressing nonpoint source reductions.

EPA has revised its allocations in the Final TMDL as compared with those proposed in the draft TMDL. This is in large part due to the improved final Phase I WIPs and informative public comments on this issue. It was always EPA's preference that the jurisdictions' final Phase I WIPs are used to meet the final TMDL allocations rather than backstop allocations. However, the final Phase I WIPs needed to meet the expectations outlined in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction and meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. Where final Phase I WIPs did not meet these criteria, EPA proposed backstop allocations in the draft TMDL. After applying all backstop allocations that EPA determined were necessary in the final TMDL, EPA ran the combination of specific practices and allocations through the Scenario Builder, Watershed Model and Water Quality Sediment Transport Model (WQSTM) to ensure that the allocations provided in the final TMDL would result in the attainment of WQS. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For the Bay TMDL, EPA believes that the assumptions underlying its backstop allocations are reasonable according to EPA's existing authority under the CWA and EPA's commitment to ensure and track implementation of actions necessary to restore the Bay by 2025 consistent with Executive Order 13508 (FLCCB 2010). EPA has described in the Federal Strategy and elsewhere, including in its May 2010 settlement agreement resolving the Chesapeake Bay Foundation's lawsuit, its plans for rulemaking addressing nutrient and sediment pollution in the Bay from both the stormwater and CAFO sectors and for tracking and ensuring progress in meeting the TMDL's nitrogen, phosphorus and sediment targets.

Comment ID 0067.1.001.010

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

But EPA's approach to industry is even more unreasonable and arbitrary. Without evaluating the industries involved, or what measures they each have in fact already put in place to reduce nutrients, EPA explains that the method used to come up with the numbers in the Backstop TMDL made "the assumption that the loads are reduced below the loads identified in the jurisdiction's draft Phase I WIP at a rate equivalent to significant municipal WWTPs going from the WIP loading level to an E3 loading level (down to 3 mg/L TN and 0.1 mg/L TP). In translation, as we understand this, EPA calculated an average percentage reduction in loadings that municipal wastewater treatment plants might make to achieve the limits of technology, and then applied the same percentage to every industry - irrespective of the current situation at each industry, and irrespective of whether their situation was anything at all like a municipal treatment plant.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0067.1.001.011

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

The result, buried in Table 02 of the EPA TMDL, is quite astonishing. For the GTP Facility, EPA has proposed to reduce Total Nitrogen loadings from the level that the Pennsylvania WIP assigns (600,515 lbs/year) to just 3,693 lb/year, and to reduce Total Phosphorus loads from the Pennsylvania WIP value (1,577 lb/year) to 31 lb/year. Based on the GTP Facility's flow rates, the EPA Backstop TMDL would equate to requiring a Total Nitrogen concentration of around 1 mg/l or less, and at Total Phosphorus concentration of less than 0.01 mg/l.

These resulting concentration values are well beyond (indeed, for phosphorus, one order of magnitude below) what EPA itself has acknowledged are the limits of technology.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0067.1.001.012

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

The EPA Backstop TMDL blithely suggests that perhaps the difference could be made up by purchasing credits - but as EPA well knows, there are nowhere near the number of credits available or predicted to be available to cover these values. Moreover, EPA's other comments on the Pennsylvania WIP draw into serious question whether the Pennsylvania credit trading program will remain viable (as EPA seems to be requiring that the baseline for creating credits be redefined from that used to create credits to date).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to comment 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0067.1.001.015

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

Such a result would not be our choice, but the result of a poorly-conceived, thoughtless, irrational and wholly arbitrary decision by EPA to punish municipalities and industries for the alleged inadequacies in efforts by other sectors to reduce their nutrient loads. Instead of tackling the real challenges in a constructive manner, EPA proposes to shoot and kill those who are trying to do their part - in the process wasting hundreds of millions of dollars of public and private investments already underway to meet the Pennsylvania WIP objectives.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0067.1.001.018

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

Throwing out the Pennsylvania WIP to impose a Backstop TMDL containing impossible and draconian mandates on December 31, 2010 will not achieve anything other than create a train wreck, and such a train wreck is not a viable pathway to achieve real Pay improvements. As our region and nation struggle to come out of the greatest economic downturn since the crash of 1929, now is not the time to waste lime, taxpayer funds, and private resources - and it is not the time to take regulatory decisions that threaten to shut down industrial plants and displace employment.

Response

Please refer to the response for comment 0229.1.001.005. The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002. Please also see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0103.1.001.007

Author Name: Laudeman Todd

Organization: Tioga County Landowners Group

The EPA nutrient and sediment allocations and backstop mandates are unattainable and extremely costly with minimal nutrient reduction benefits and minimal impact on water quality in the Bay.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0113.001.003

Author Name: Morgan K.

Organization:

States like Virginia need to play their part in cleaning up the Bay. Please use EPA to help make that happen.

Response

Thank you for the supporting comment. Please refer to the response for comment 0246.1.001.004.

Comment ID 0114-cp.001.003

Author Name: Harrison T.

Organization:

EPA SHOULD NOT GIVE PA ANY SLACK. IT SHOULD ENFORCE THE LAW. LOCAL FARMERS WAIT TIL 5PM FRI OR SAT AM TO BURN PLASTIC BARRELS NEXT TO STREAMS. AND THEY HAVE LIVESTOCK IN THE STREAMS ALMOST EVERYWHERE YOU LOOK AROUND HERE.

The DEP has not enforced Federal or PA State laws in the past. The newspaper articles recently published in Lancaster about the Bay and the Amish show a continued reluctance to enforce the laws that impact the Bay. The attachment [Comment Letter contains additional information in the form of an attachment. See original comment letter 0114.1 through 0114.6] contains documents proving that DEP has not enforced the Clean Streams Act. And they show how EPA had to come to 2 very small STPs in Adams County PA to enforce what DEP would not. This was after DEP was confronted with it's own documents (same as some attached) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0114.1 through 0114.6] from it's own file room over the course of 4 days of research into one local watershed. DEP refused to discuss it.

Maryland is impacted more than PA by PA DEP not enforcing the law. And DEP of PA raising the argument that EPA should stick to big cities and big farm operations-letting DEP allow 'unENforcement' as has happened in the past is no longer a viable option for any party concerned with the Bay. The SRBC has these documents and did not act. Obviously DEP has them and the thousands of other pages of showing inspections noting overloads, periiits issued before planning modules approved, etc.... Maryland did not want them, but maybe that has changed.

Response

Please refer to the response for comment 0130.001.001.

Comment ID 0116.001.003

Author Name: Houser T.

Organization:

States like Virginia need to play their part in cleaning up the Bay. Please use the EPA to help make that happen.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0126.1.001.006

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

In the EPA review of the Virginia Watershed Implementation Plan (WIP) the EPA has declared the original draft proposal as inadequate in that it misses the modeled Nitrogen and Phosphorus by 6% and 7% respectively. In natural systems, this is well within an expected variation, therefore the Virginia plan should not be subject to the backup requirements.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0184.1.001.002

Author Name: Hively Christopher

Organization: Town of Culpeper, Virginia

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0198.1.001.004

Author Name: Covington Roy

Organization: Chesterfield County, Virginia

we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0199.1.001.004

Author Name: Frederick Thomas

Organization: Rivanna Water & Sewer Authority

we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0203.1.001.002

Author Name: Weindel Uwe

Organization: Frederick County Sanitation Authority

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0206.1.001.002

Author Name: Vass Evan

Organization: Town of New Market, Virginia

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0209.1.001.002

Author Name: Saunders Thomas

Organization: Town of Kilmarnock, Virginia

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is a nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0213.1.001.006

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

EPA's backstop allocations proposal takes a "one-size-fits-all" approach to POTWs and is requiring POTWs in the James River Basin to achieve nitrogen and phosphorus reductions of 4 mg/l and 0.3 mg/l respectively. This approach does not take into account any unique characteristics of POTWs such as HRWTF with its industrial wastewater base. EPA and Virginia DEQ have previously recognized this uniqueness by basing HRWTF's effluent limits on a flow weighted average of industrial effluent guidelines for the pulp and paper and organic chemical, plastics, and synthetic fibers industries along with domestic secondary treatment standards. By using this "one-size-fits-all" POTW approach, EPA is proposing to cut HRWTF's nitrogen allocation by 66% or 1.2 million lbs/year and our phosphorus allocation by 39% or 30, 000 lbs/year. These drastic cuts are likely not achievable with current technology and clearly are not sustainable to our community.

Because of higher than normal influent temperatures and wastewater that is inhibitory to traditional nitrification, HRWTF has for two decades studied nitrogen removal technologies and determined that the limit of technology for HRWTF was 8 mg/l vs. 3mg/l for conventional POTWs. In addition, during the James River Tributary Strategy process, Virginia DEQ acknowledged that BNR equivalency for HRWTF was 12 mg/l compared to 5 mg/l for most POTWs. Based on the knowledge that we have of our wastewater, we are certain that HRWTF cannot reasonably achieve the proposed backstop allocations.

Moreover, our influent wastewater is phosphorus deficient, which requires the addition of phosphorus at a cost of \$70,000 a year in order for biological treatment to occur. Exact amounts of phosphorus needed for biological activity is difficult to control with current technology, however, our effluent phosphorus averages 0.7 mg/l annually. Reducing HRWTF's phosphorus allocation by 39% will require the installation of phosphorus removal technology to a facility that ADDS phosphorus to consistently meet a 0.3 mg/l limitation.

Imposing the proposed backstop allocations on POTWs like HRWTF, places an unfair disadvantage on the Hopewell industries. Other industries that are direct discharges into the James River are not faced with large reductions in their nutrient allocations. By virtue of discharging into the regional treatment system, which, as previously mentioned, was endorsed by EPA, the Hopewell industries will have to pay their share of the costs which will be substantial for HRWTF to meet these backstop allocations. We do not believe our industries can sustain large increases in sewer charges and may choose to close or move where it is more economically stable. In fact, one of the Hopewell industries just emerged from bankruptcy in 2010.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0213.1.001.007

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

Proposed Backstop Allocations Affect Regulatory Stability and Planning:

In January 2007, almost 4 years ago, Virginia issued its Nutrient General Permit and established the Nutrient Credit Exchange Association, which set the allocations and trading rules for point source discharges into Virginia's Bay tributaries. Compliance plans were developed and approved. Treatment plants designed and built. Virginia's point source allocation achieved. Now, under the proposed TMDL and proposed backstop allocations, it appears that "no good deed goes unpunished". The regulatory stability that Virginia dischargers thought was evident in the general permit and trading agreements will be erased by EPA if the current draft of the TMDL goes into effect.

Since 1985, three major nitrogen reduction projects were implemented in Hopewell at a cost of \$25 million. These project reduced nitrogen in our effluent by 69%. Even with that investment and that much reduction, we are still marginally meeting our current nitrogen allocation. We are currently implementing the first phase of a two phase plan toward additional nitrogen removal. The first phase, at a cost of \$30 million is currently under construction. The second phase was in the preliminary stages of preliminary engineering. However, since the introduction of the draft TMDL, and the uncertainty of final limitations, phase two of the project has been postponed. We doubt that HRWTF is the only

facility that is taking this approach. We believe EPA's proposed TMDL may actually delay Bay clean-up by creating an environment of regulatory uncertainty and setting the stage for future litigation.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0213.1.001.009

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

Proposed Point Source Backstop Allocation for Sediment is Unnecessary: TSS from point sources is a de minimis load of less than 1%. In EPA's public meetings on the TMDL, one of the slides showed that Virginia's WIP met the sediment allocation. If this is the case, then why are sediment backstop allocations necessary? We believe EPA is being arbitrary in placing this requirement in the draft TMDL. If this requirement remains in the final TMDL, it will require POTWs to install filters to meet a 5 mg/l TSS limit, which will provide no benefit to water quality and will only add unnecessary costs to an already onerous regulation.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0299.1.001.006 for additional information on sediment allocations to WWTPs.

Comment ID 0215.1.001.004

Author Name: Milo J.

Organization: Maury Service Authority (MSA)

we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0216.1.001.006

Author Name: Johnson Rick

Organization: Algae Producers of America

Reviewing the EPA Evaluation of the Pennsylvania Draft Watershed Implementation Plan, it was noted a rating of "Serious Deficiencies" was assigned due to P (11%) and TSS (1%) being over the 7/1 and 8/13 allocations. As a result, a High Level backstop allocation for Pennsylvania point sources is possible unless the Phase I WIP is strengthened. This could result in significant additional costs if the limit of technology (3mg/L TN and 0.1mg/L TP) for Waste Water Treatment Plants is required. Further, the limit of technology levels identified are representative of Biological Nutrient Reduction (BNR) technologies. There is a growing movement towards Enhanced Nutrient Reduction (ENR) technologies and it is quite possible that these more stringent requirements could be mandated. As summarized in the earlier tables, we have consistently demonstrated the ability to exceed even the more stringent ENR targets at multiple sites.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0217.1.001.011

Author Name: Pozgar David

Organization: Logan Township

The Backstop provisions in the draft EPA TMDL for the Chesapeake Bay are severe and in some cases unachievable.

The Backstop, if implemented, will create severe hardship on most of the residents and businesses in our community and beyond. The actions will likely be legally challenged and progress towards Chesapeake Bay goals will be further delayed.

Questionable data used in determining TMDL limits.

Over the past several years that we have been addressing the need to clean up the Bay, we have been given erroneous information on not only the methods used to determine the extent of the damage, but what levels of remediation are needed to correct the damage that was done. If there would have been any agreement between and within the governmental agencies charged with the duties of finding a solution to the bay's problems we would be much further ahead. If Best Management Practices would have been properly taught to POTW's (as they are to agriculture) we would be much further ahead. So now the answer seems to be, to place the enormous expense of cleanup on those contributing to the bay's problems by 15%, while those contributing to the Bay's issues by 85% still fall into the Best Management Practices category.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay. Additionally, the implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002.

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models and data utilized in the Chesapeake Bay TMDL development.

Comment ID 0223.1.001.001

Author Name: Hazenstab Robert

Organization: Duncansville Municipal Authority

The Duncansville Municipal Authority in Blair County, Pennsylvania has just completed a \$11 million dollar project to upgrade and expand its wastewater treatment plant. Construction was completed in July 2010. A large portion of this project was undertaken because the Authority had been issued a new NPDES permit in September 28, 2007. That

permit required the removal of total nitrogen (TN) and total phosphorous (TP) down to much lower levels than the previous plant had been capable of achieving. The new levels include annual cap loads for TN and TP and are summarized below:

	Previous Permit Limits	Sept. 28, 2007 Permit Limits
Design Flow	1.217mgd	1.75mgd
CBOD5	25 mg/l	25 mg/l
TSS	30 mg/l	30 mg/l
NH3-N (Nov-Oct)	3.5 mg/l	3.5 mg/l
NH3-n (Nov-April)	9.0 mg/l	9.0 mg/l
TN	NA Monitor/Report	6.0mg/l*
TP	NA Monitor/Report	0.8 mg/l*
Annual Cap Load TN	NA	22,228 lbs/yr
Annual Cap Load TP	NA	2,963 lbs/yr
TN @ 1.75 mgd	NA	4.17mg/l
TP @ 1.75 mgd	NA	0.55 mg/l

*Based on cap load limits @ 1.217mgd

The Authority constructed chemical addition facilities, denitrification filter and an effluent pump station to ensure that the plant had TN and TP removal capabilities to the levels required to meet the annual cap loads contained in the September 28, 2007 permit.

The Authority had to increase the billed rates to its customers significantly as a result of this project. The monthly sewer bill had been \$37 per month before this project. As a result of the project, a typical monthly residential sewer bill (4,000 gallons per month) has increased to \$62 per month. This is a 67% increase above the previous monthly sewer rate. Customers using more than 4,000 gallons per month are paying even higher monthly charges.

These rates would be much higher had the Authority not received substantial grant funds to help reduce costs to the local customers.

The Authority is now aware that the U.S. EPA is considering levying "backstop TMDLs" on the Duncansville plant that will reduce its annual cap load to 4,695 pounds per year for TN and 97 pounds per year for TP. At these annual loadings, the average daily flow concentration for TN and TP has to be as follows:

[Original comment letter contains additional information in a table comparing TN and TP concentrations. See original comment letter.]

Our newly constructed plant upgrade cannot meet the proposed "Backstop TMDL" limits at the plant design flow of 1.75 mgd. Since we have infiltration and inflow (I/I) in our sewer system, wet weather flows exceed our daily design flow capacity and the presence of TMDLs as low as the ones proposed only accentuates the problem of meeting a daily limit for TN and TP.

If the Backstop TMDL limits become part of our NPDES permit, then we will be forced to construct yet another plant

upgrade and incur additional costs, which would have to be passed on to our sewer customers. We find the prospect of embarking on yet another plant upgrade so soon after completing the present upgrade to be infeasible. Our community is not a wealthy community by any means. Increasing sewer rates even more, particularly in these difficult economic times, is not a situation we want to face.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0223.1.001.003

Author Name: Hazenstab Robert

Organization: Duncansville Municipal Authority

4. The newly constructed plant upgrades cannot achieve the proposed new TMDL backstop levels. The denitrification filter system is designed to remove TN using methanol. Overdosing with methanol does not guarantee further reductions in TN without causing other operational difficulties and effluent degradation. For example, overdosing of methanol could lead to excess methanol in the effluent which adds CBOD₅, in the effluent. Also this is wasteful of an expensive chemical. Furthermore the on-line continuous nitrate monitoring system cannot measure down to the levels needed to accurately and reliably prevent overdosing. Excess methanol also triggers production of sulfide reducing bacteria and this then begins causing H₂S gas generation. Effluent quality would drop due to presence of higher TSS. Odor generation requires odor treatment, yet another expense to deal with.

Further downstream unit processes would be needed to remove additional TN and TP down to the levels under the capabilities of the present new denitrification system. And as U.S. EPA admits, current technology cannot reliably get effluents below 3.0 and 0.1 mg/l for TN and TP respectively.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0228.1.001.007

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The EPA backstop proposes 4.0 mg/L for TN and 0.30 mg/L for TP for Virginia; yet, for Delaware, Pennsylvania, New York, and West Virginia, the EPA proposed a more restrictive backstop of 3.0 mg/L and 0.10 mg/L. Table 3 puts these numbers in perspective:

Table 3: Flow Weighted Average for Concentrations (mg/L) used for Current WLAs for Significant Dischargers by basin. [Please see page 5 of the original letter (Docket ID 0228.1.001.007).] [FN11]

Furthermore, in the Potomac Embayment, the following WWTPs already operate at TN concentrations of 3.0 mg/L and TP concentrations of 0.18 mg/L:

- Quantico Wastewater Treatment Facility;
- Aquia Wastewater Treatment Facility;
- Dale Serv. Corp - Section 1 & 8 Wastewater Treatment Facilities;
- H L Mooney Wastewater Treatment Facility;
- Arlington County Water Pollution Control Facility;
- Alexandria Sanitation Authority Wastewater Treatment Facility; and
- Norman M Cole Jr. Pollution Control Facility.

A recent article in the Washington Post titled, "Potomac River now healthier than in '50s, study shows," [FN12] discussed the dramatic changes in the Potomac River (TP concentration of 0.20 mg/l) since the 1960s and attributed the turnaround to upgrades at the Blue Plains treatment plant. (See Exhibit 3, "Potomac River now healthier than in '50s, study shows.") [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] In stark comparison is the current condition of the James River with significantly less stringent WWTP requirements (TP concentration of 0.65 mg/l). An article in The Virginia-Pilot titled, "Algae blooms strike Hampton Roads waters - again," [FN13] discussed the recurrence of algae blooms in the Hampton Roads area and cited "industrial dischargers" as one source of the problem. (See Exhibit 4, "Algae blooms strike Hampton Roads waters - again.") [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] The direct link between water quality and the WWTP effluent concentrations shown in Table 3 is clear.

[FN11] Current concentrations were calculated from design flows and waste load allocations which were provided by Russ Baxter (DEQ- Chesapeake Bay Program) via e-mail on 9/21/2010.

[FN 12] Published on 9/7/2010. Full article is located in Exhibit 3 and is available at the following website: http://www.washingtonpost.com/wp-dyn/content/article/2010/09/07/AR2010090703555.html?wpisrc=nl_localpolalert. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1]

[FN 13] Published on 8/12/2010. Full article and photos are located in Exhibit 4 and are available at the following website: <http://hamptonroads.com/2010/08/whats-behind-red-tide-algae-blooms-strike-regions-waters-again>. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1]

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0229-cp.001.001

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC) officially states its opposition to the Environmental Protection Agency's proposed 'backstop' TMDL. The Chamber & CREDC fully supports the clean-up of nutrients and sediment pollution from the Chesapeake Bay, however, the EPA's proposed backstop TMDL would result in a significant economic impact on sewage treatment plants and ratepayers, which include the business community and citizens of the Commonwealth. As a regional business association and economic development organization, with nearly 1500 members throughout Cumberland, Dauphin and Perry Counties, we fully realize the potential negative impact these regulations may have on our community.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0229.1.001.002

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

DEP's proposed Phase 1 WIP was based upon loading limits of 6 mg/l total nitrogen and 0.8 mg/l total phosphorus at design flow for major point sources. EPA believes DEP's WIP does not provide reasonable assurance that the state will meet its load reduction requirements. As a result, EPA in its proposed TMDL has included a "backstop" which includes more stringent limits of 3 mg/l total nitrogen and 0.1 mg/l total phosphorus at design flow. EPA's backstop will have a significant economic impact on the sewage treatment plants and their ratepayers.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0229.1.001.004

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Chamber & CREDC support DEP's collaborative approach to establishing point source pollution limits

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0229.1.001.005

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Chamber & CREDC opposes EPA's proposed more stringent backstop.

Response

EPA has received numerous comments stating general opposition for EPA's backstop allocations. It is EPA's preference that the jurisdictions' final Phase I WIPs are used to meet the final TMDL allocations rather than backstop allocations. However, the final Phase I WIPs needed to meet the expectations outlined in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction and meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. Where final Phase I WIPs did not meet these criteria, EPA established backstop allocations. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also refer to the response for comment 0067.1.001.009 for general information on backstop allocations.

Comment ID 0229.1.001.006

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Chamber & CREDC supports a nutrient trading and offsetting program as developed by DEP and is concerned that EPA's backstop may hinder its development.

Response

EPA supports trading as outlined in Section 10 of the TMDL and looks forward to working with PA on its trading program. Please see the response to comment 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions.

Comment ID 0230.1.001.002

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

HRSD is fully prepared to comply with any new regulations resulting from the TMDL. However, as an organization that believes strong science should support all regulations, HRSD is concerned with EPA's recent actions. Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations") and the associated waste load allocations were established to meet the same water quality standards the TMDL must meet, based on EPA's own Chesapeake Bay/James River water quality model. The only significant change between the issuance of those regulations and the EPA's Draft TMDL is an update of the model and changes in how the model is applied. We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facilities.

Response

Please refer to the response for comment 0229.1.001.005. Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Comment ID 0230.1.001.004

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTPs and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations, and we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0230.1.001.015

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA's Backstops Negatively Impact Smart Growth and Future Economic Development

Virginia's WIP better enables nutrient loads from future growth to be managed in an environmentally beneficial manner, specifically enabling a least a modest amount of capacity to be available for normal wastewater flow increases over time with advanced nutrient removal technology. This treatment would be possible in lieu of this growth being served by far less efficient on-site disposal systems ("OSDSs") such as septic systems. Further reductions to existing allocations as EPA proposes could increase net (i.e., POTW plus OSDS) nitrogen loadings, work counter to smart growth principles by driving growth away from existing urbanized areas with advanced centralized treatment, and lead to negative environmental results.

VAMWA has performed simple calculations to quantify the net increase in nitrogen loading that could result from reducing POTW allocations and directing the flow associated with the "lost" treatment capacity (due to overly stringent wasteload allocations) to OSDSs. VAMWA has concluded that a reduction in the concentrations of POTW allocations could result in a net increase in total nitrogen loadings to surface water, even using the use of costly denitrifying OSDSs. Thus, EPA's backstops risk this adverse environmental impact.

Preserving POTW allocations at current levels also provides capacity for future healthy economic growth. If EPA refuses to revise its Draft TMDL, POTWs will lose some ability to serve future economic development.

To the extent that EPA believes POTWs will be able to avail themselves of non-point source offsets and thus be in a position to provide treatment capacity to customers, VAMWA notes that offsets are not widely available at the present time and thus do not represent a viable option for planning, financing or constructing major public infrastructure.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0230.1.001.027

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

IV. EPA's BACKSTOPS WILL NEGATIVELY IMPACT SMART GROWTH & ECONOMIC DEVELOPMENT

A. Smart Growth

Most major POTWs in the Chesapeake Bay watershed currently have allocations that were calculated using design flows and a TN concentration between 4 and 6 mg/L. In comparison, secondary treatment POTWs may discharge at a concentration of approximately 25 mg/L TN plus or minus. The generally-agreed upon limit of technology (LOT) for nitrogen removal at POTWs is 3 mg/L; thus, treatment at the 4-6 mg/L level is about 85%-to 95% of the maximum technically feasible reduction.

After making these major reductions, what remains is only limited capacity for POTWs to serve future growth in wastewater flows in the environmentally beneficial manner of using these advanced treatment facilities rather than to less effective on-site disposal systems ("OSDSs"). In contrast, the reductions reflected in EPA's TMDL could increase net (POTW+OSDS) nitrogen loadings, harm smart growth, and cause environmental detriments associated with OSDS-based sprawl. [FN39]

The interaction between POTW and OSDS loads is of high importance when considering future growth. VAMWA has performed simple calculations to quantify the net increase in nitrogen loading that could result from reducing POTW allocations and directing the flow associated with the "lost" treatment capacity to OSDSs.

The conclusion based upon those computations is that reduction in the concentrations of POTW allocations could result in a net increase in total nitrogen loadings to surface water, even using denitrifying OSDSs. Some of the potential increase could be prevented by wastewater recycle/reuse, depending on land availability, demand for recycle water, and costs. However, these calculations underscore the importance of joint planning of POTW and OSDS loads in light of future growth. EPA's decision to cut POTW allocations in its Draft TMDL risks this future environmental impact.

[FN39] See C. Bell and K. Dorken Paper (Calculation of Net Load Increases from Diverting Future Wastewater Flows to On-Site Disposal Systems Instead of ENR POTWS) (attached hereto as Appendix 20).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0231.1.001.004

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

UOSA's Waste Load Allocation in the VPDES General Permit and Further Reduction Due to Backstop Measure

During the VPDES Nutrients General Permit (9VAC25-820) public comment period, Dr. Grizzard, OWML's Director, expressed concern that the current allocation of 1.316 million pounds/year of nitrogen (8 mg/L at 54 mgd capacity) in the UOSA Nutrient General Permit may not be adequate at all times to prevent nitrate deficiencies and the resultant consequences discussed previously. However, UOSA accepted its VPDES General Permit with that TN allocation and has committed to manage nitrate discharges to match what is best for Occoquan water quality to the extent practicable and still not exceed its allocation. If UOSA's allocation were reduced to 657,841 pounds/year, UOSA would be in a position of having to conduct a year-round maximum denitrification effort which would undoubtedly result in nitrate deficiencies and a significant release of phosphorus, ammonia and manganese from reservoir sediments. The backstop measure of reducing UOSA's TN WLA from 1.316 million pounds/year to 657,841 pounds per year could result in the degradation of the Occoquan Reservoir's water quality similar to the pre-UOSA 1960s condition and also increase nutrient loads to the Potomac River and the Bay.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0231.1.001.009

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against waste water treatment plants (WWTPs). EPA currently proposes to cut Virginia's stringent nutrient waste load allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations"). EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is a nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0231.1.001.012

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0231.1.001.014

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

Summary

UOSA requests that the TN WLA of 1.316 million pounds/year be preserved in any future Chesapeake Bay TMDL. Research and water quality surveillance have unequivocally shown that reducing UOSA's TN WLA will result in water quality degradation of the water supply.

The draft TMDL document Executive Summary states:

"It is important to note that the pollution controls employed to meet the TMDL will also have significant benefits for water quality in tens of thousands of streams, creeks and rivers throughout the region." (Executive Summary, Page 3)

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0231.1.001.015

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

As it stands, the draft Bay TMDL is not protective of the Northern Virginia water supply. EPA officials, in public meetings have acknowledged that the broad brush backstop provisions may not be the smart way to address local considerations such as the protective nature of the nitrate in UOSA's discharge. We strongly encourage EPA to do the correct and smart thing for the Occoquan, its 1.7 million drinking water customers, the Potomac and the Bay and remove from the TMDL any further consideration of the backstop provision as it applies to UOSA.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0234.1.001.002

Author Name: Dickey Dean

Organization: Prince William County Service Authority (PWCSA), Virginia

PWGSA is particularly concerned regarding the proposed EPA TMDL backstop WLA for the UOSA water reclamation plant. First, the reduction in UOSA's WLA endangers the water quality of the Occoquan Reservoir. The Occoquan Reservoir provides drinking water to approximately 1.4 million Northern Virginia residents, including many residents of Prince William County. Second, the required upgrades to meet the proposed backstop WLA at UOSA would represent a very substantial cost to our ratepayers for no improvement in the water quality of either the Potomac River or the Chesapeake Bay. PWCSA delivers approximately 36% of the flow to the UOSA plant.

UOSA is already one of the most advanced wastewater treatment plants in the country and has supported indirect reuse for over 30 years. It meets or exceeds most drinking water standards. Considering that its flow can be well over 50% of the input to the Occoquan Reservoir during low flow periods, it certainly should discharge truly exceptional quality water. However, the health of the Reservoir also depends on UOSA to supply much of the nitrate that would have to be removed if the backstop TN WLA is included in the final TMDL . The Occoquan Watershed Monitoring Laboratory (OWML,) has studied the Occoquan in depth since 1974. OWML is operated by the Virginia Tech Department of Civil Engineering, and it is overseen by the Occoquan Watershed Monitoring Subcommittee (OWMS) on

behalf of the State Water Control Board. OWML has determined, and repeatedly proved, that nitrate levels in the Occoquan serve to trap phosphorus in the sediments. Without the required levels of nitrate, OWML studies and models have determined that the Occoquan Reservoir's water quality would degrade substantially. Given the key role of the Reservoir in the interconnected Northern Virginia system, degradation of the Reservoir could be deleterious to the health and well-being of over a million residents. We urge the EPA in the strongest possible terms to remove UOSA from the list of municipal plants facing backstop WLAs.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0238-cp.001.004

Author Name: Pangraze P.

Organization: Holladay Properties, Inc.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices.

Response

Thank you for your comment. Please see the response to comment number 0232.1.001.004.

Comment ID 0245-cp.001.006

Author Name: Coulter Laurie

Organization: Virginia Crop Production Association, Inc. (VACPA)

Virginia's Watershed Implementation Plan (WIP) reflects some practices for agriculture that VACPA strongly believes,

given proper implementation and funding, will result in significant water quality improvements. Agricultural Resource Management or Conservation Plans to meet the individual conservation needs of each farm will result in progress without mandating a "one-size-fits-all approach". We question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirements are both unclear. Instead of forcing states to regulate their way out of "backstops," we urge EPA to allow Virginia to implement its own plans for achieving clean water goals without costly, burdensome regulations.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0246.1.001.004

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

While we ultimately hope to see Virginia improve its WIP, we do support EPA's proposed TMDL backstops if Virginia fails to implement adequate measures to protect the Bay. We believe that if the backstops are properly implemented, they will help address many of the pollution sources we have documented.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. EPA has received numerous comments stating general support for EPA's backstop allocations. It is EPA's preference that the jurisdictions' final Phase I WIPs are used to meet the final TMDL allocations rather than backstop allocations. However, the final Phase I WIPs needed to meet the expectations outlined in EPA's November 4, 2009, WIP expectations letter sent to each jurisdiction and meet all of the eight elements outlined in EPA's April 2, 2010, Guide for Evaluation of the Phase I Watershed Implementation Plans. Where final Phase I WIPs did not meet these criteria, backstop allocations were applied. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also refer to the response for comment 0067.1.001.009 for general information on backstop allocations.

Comment ID 0246.1.001.006

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

EPA has identified several backstops that it will employ in the event Virginia fails to make adequate improvements to its WIP. The backstops include subjecting all AFOs to the same pollution control requirements currently required of permitted CAFOs, either by amending the CAFO regulations or through EPA's residual designation authority under 40 C.F.R. §122.23(c).[FN 13] Additionally, "all animals except dairies . . . on AFOs that are not subject to CAFO permit conditions . . . [will] receive feed management."[FN 14] In sum, EPA will require that a greater percentage of Virginia's farms implement the BMPs currently required only of CAFOs.

[FN 13] ENVTL. PROT. AGENCY, DRAFT CHESAPEAKE BAY TMDL: SECTION 8: WATERSHED IMPLEMENTATION PLAN EVALUATION AND BACKSTOP ALLOCATIONS 11, 15 (Sept. 24, 2010) ("will become regulated through some... appropriate designation/rulemaking/permits").

[FN 14] *Id.* at 15

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0246.1.001.010

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

In the event that Virginia fails to improve its strategy for achieving ninety-five percent implementation, EPA's backstop of reducing CAFO thresholds would help approach the necessary implementation levels. EPA could amend its regulations to require that all CAFOs implement this BMP and then reduce the CAFO threshold. As a result, EPA's backstops could ensure that more farms would follow this BMP. Consequently, Shenandoah Riverkeeper supports EPA's use of backstops if Virginia fails to provide reasonable assurance that it can achieve its implementation goals.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0246.1.001.018

Author Name: Kelble Jeff

Organization: Potomac Riverkeeper Inc. (Shenandoah and Potomac Riverkeeper)

Based on the current draft of Virginia's WIP, we support the backstops EPA proposes in the draft TMDL. We would much rather see a Virginia driven solution to achieve the pollution reductions needed to restore the Bay. Such a solution would include funding commitments for incentive programs, improvements in regulatory programs, and increases in

staff and effort needed for both types of programs. Unfortunately, Virginia's draft WIP is grossly inadequate, and leaves us no choice but to support EPA's backstop measures.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0257.1.001.008

Author Name: Christian Stephen

Organization: Berkeley County Development Authority, Berkeley County, Martinsburg, West Virginia

EPA has imposed stricter limits upon the regulated wastewater treatment plants. The imposed limits correspond to EPA's maximum theoretical load reduction, or "E3" scenario: assuming the best case and that all available control technologies are deployed and represented at the highest technologically achievable levels of treatment, regardless of costs. This scenario would lead to more onerous rates for wastewater customers and leave even less opportunity for future growth in Berkeley County. These backstop limits must be removed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0263.1.001.002

Author Name: Foley Sharon

Organization: Harrisonburg-Rockingham Regional Sewer Authority (HRRSA)

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow

levels (2007 to 2009 average flow rather than design flow). Such actions and threats by EPA on the wastewater sector are completely unjustified and would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions since roughly 80 percent of the nutrient load is attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0265.1.001.009

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

At the outset, the Hampton Roads Localities wish to make clear that they are supportive of the TMDL's goals as reflected in their ongoing commitment of significant resources to implementation of their MS4 programs. Further, the Localities are supportive of and are prepared to commit more resources to their MS4 programs if needed to help restore the Chesapeake Bay and protect the James and York rivers, but the commitment of more resources must be supported by sound science. Unfortunately, however, as explained below, the TMDL lacks a sound scientific basis. Consequently, the Localities have very little confidence in the accuracy of the James and York river basin-wide backstop allocations in general and the urban runoff sector backstop allocations in particular. Further, even if one assumes for the sake of argument that these allocations accurately reflect the load reductions needed to restore the Bay and protect the James and York rivers, the magnitude of the tasks and estimated costs of achieving the load reductions are so great that it is not reasonable to expect that the reductions can be attained by EPA's 2025 deadline.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Comment ID 0271.1.001.005

Author Name: Harrison L.

Organization: South Central Wastewater Authority, Petersburg, Virginia

we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0281.1.001.002

Author Name: Hammes Dale

Organization: Loudoun Water

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is a nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0287-cp.001.004

Author Name: Ristow Aaron

Organization: Upper Susquehanna Coalition

The EPA nutrient and sediment allocations and backstop mandates are unattainable, extremely costly, with minimal nutrient reduction benefits and impact on water quality in the Bay.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0288.1.001.004

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

On January 30, 2009, EPA sent a letter to the Director of VADEQ regarding Virginia's current regulatory approach with regard to existing nutrient cap loadings.[FN3] EPA's letter included clear support for Virginia's current program, and a confirmation that the cap loads were properly designed to meet Bay water quality requirements:

Virginia developed the Virginia Chesapeake Bay Watershed General NPDES Permit, and an associated trading program to specifically address the point source allocations for each Virginia watershed in the Chesapeake Bay. EPA's Chesapeake Bay Program verified that those cap loadings were sufficient to achieve Bay water quality. Based on the assignment of wasteload allocations and EPA evaluation of the applicable cap load, EPA found that the General Permit ensured that individual point source discharges would not cause or contribute to an exceedance of the applicable Bay water quality standards. [FN4]

Inexplicably, 21 months later, EPA proposes to radically alter Virginia's regulatory regime and thus negatively impact the associated \$2 billion construction program and an established trading program. EPA's actions in its Draft TMDL are irresponsible and cannot be reconciled with any reasoned approach to TMDL development.

[FN3] Attached hereto as Appendix 2. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A2],

[FN4] January 30 Letter at p. 2. In this letter, EPA also confirmed that it sent a letter on December 14, 2006 in which it "reported 'no objection' to the General Permit..."

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0288.1.001.009

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

In addition, EPA's backstops set a universal technology standard on POTWs across Virginia. This is inconsistent with Virginia's more scientifically defensible site-specific approach in the Virginia Regulations. Virginia's allocations recognize that (1) the James and York River basins do not contribute to the mid-Bay impairments and instead are regulated differently for local quality objectives, and (2) a number of Virginia plants have valid site-specific needs for the allocations alternative allocations. As to the second point, for example, UOSA's allocation reflects the unique drinking water considerations of its immediate receiving water, the Occoquan Reservoir. EPA's backstop WLA would endanger the water quality of the Reservoir, and, in turn, drinking water for to up to a million Northern Virginia residents. Other POTWs with particular WLAs under Virginia law include the City of Hopewell's POTW (80% industrial flow which is far higher than a typical municipal facility) and Virginia's CSO communities (City of Lynchburg and City of Richmond). EPA's failure to consider these important issues in its Draft TMDL is unreasonable.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0288.1.001.026

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

EPA'S BACKSTOPS ELIMINATE PLANNED AGRICULTURAL LOAD REDUCTIONS DESPITE THOSE CONTROLS BEING AMONG THE MOST COST-EFFECTIVE MEASURES FOR IMPROVEMENT

Section 6 of the Draft TMDL document describes EPA's allocation method for relating relative impact to needed controls. The methodology recognizes that nonpoint sources cannot attain the same levels of control as point sources, and calls for 55-75% of E3 nitrogen controls from nonpoint sources such as agriculture. However, EPA's "backstop" allocations appear to have been accompanied by increases in allocations to nonpoint sources, such that agriculture in many basins fall well short of the intended level of nitrogen control. In so doing, EPA has dispensed with the fairness/equity concepts developed by its own TMDL work group, and shifted implementation away from the most cost-effective, environmentally beneficial practices.

Overall, EPA's Draft TMDL appears to put Virginia agriculture at a 48% level of nitrogen control (relative to E3), well below the 55-75% level indicated by the relative-effectiveness allocation methodology and far short of controls called for in both Virginia's Tributary Strategy and Draft WIP (Figure 5). This is partly driven by the lower levels of effort in the Potomac River Basin (51%), but primarily driven by an extraordinarily low (17%) level of effort for the James River

Basin, which is akin to the 2009 progress levels (Figure 6). VAMWA fails to comprehend how EPA can make deep and costly cuts to point source allocations in the James River Basin while concluding that agriculture requires no further improvements in this basin.

[Figure 5: Comparison of agricultural controls among model scenarios. Please see original document 0288.1]

Agricultural management practices include most of the practices that the EPA and others (e.g., Chesapeake Bay Commission, 2004) have identified as the most-cost effective, including nutrient management, conservation tillage, cover crops, and riparian buffers. Relative to many urban and wastewater-based practices, these practices provide much high levels of ancillary environmental benefits such as wildlife habitat, stream habitat protection, flood control, and greenhouse gas reduction. To illustrate these points, Appendix 43 [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A43] presents a case study of alternative nutrient controls for the York River basin using the BMP Benefit Planner ver. 1.1.[FN74] The case study demonstrates that the DO-based overall loading goal can be achieved in a much more cost-effective, environmentally beneficial manner by a different combination of point and nonpoint source controls than reflected in the draft TMDL allocations.

[Figure 6: Comparison of agricultural nitrogen controls among basins for EPA's proposed TMDL scenario. Please see original document 0288.1]

VAMWA expects EPA to allocate point and nonpoint sources in an equitable manner that requires a high level of effort from both sectors. In particular, EPA must remedy the low level of agricultural controls proposed for the James River basin, consistent with the widespread understanding that the agricultural sector has abundant opportunities for improvement and cost-effective load reductions.

[FN74] Malcolm Pirnie, Inc., working on behalf of VAMWA, has developed a spreadsheet based model to compare implementation scenarios with regard to environmental sustainability and cost effectiveness. More specifically, the BMP Benefit Planner ver. 1.1 considers energy usage, indirect and direct GHG emissions, carbon sequestration, costs (i.e., capital, operations and maintenance, annualized), and other ancillary benefits (i.e., wildlife habitat, instream habitat, aesthetics, public health, flood hazard mitigation, and groundwater re-charge and base-flow protection). The model addresses a number of common management practices involving wastewater upgrades and various agricultural and urban practices.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0293.1.001.013

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

For these reasons above, VAMSA objects to EPA's determination to impose a "backstop" that mandates retrofits. This error must be corrected before EPA issues its final TMDL. For the above reasons, EPA's position on "reasonable assurance" is unlawful and unreasonable and arbitrary and capricious.

VAMSA's position is further supported by the fact that EPA has no authority pursuant to the CWA to review and/or approve or disapprove Virginia's Draft WIP. EPA's decision to do so, and its proposal to override Virginia's WIP, is unlawful.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA reminds the commenter that EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Comment ID 0293.1.001.021

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA's Backstops Eliminate Planned Agricultural Load Reductions Despite Those Controls Being Among the Most Cost-Effective Measures for Improvement

Section 6 of the Draft TMDL document describes EPA's allocation method for relating relative impact to needed controls. The methodology recognizes that nonpoint sources cannot attain the same levels of control as point sources, and calls for 55-75% of E3 nitrogen controls from nonpoint sources such as agriculture. However, EPA's "backstop" allocations appear to have been accompanied by increases in allocations to nonpoint sources, such that agriculture in many basins fall well short of the intended level of nitrogen control. In so doing, EPA has dispensed with the fairness/equity concepts developed by its own TMDL work group, and shifted implementation away from the most cost-effective, environmentally beneficial practices.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0303.1.001.004

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0305-cp.001.003

Author Name: Woodhouse Doug

Organization: Virginia American Water (VAW)

In addition, the position of VAW concurs with HRWTF that the EPA "Backstop" allocations are unfair, in that the nutrient compliance goals should focus more on reducing Nonpoint Source discharges, rather than increased reductions to Virginia's WIP POTW.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0314.001.005

Author Name: Santulli Thomas

Organization: Southern Tier Central Regional Planning and Development Board (STCRPDB)

In light of the unreasonable allocations provided to New York and the limited time available for the states to develop Draft Watershed Implementation Plans (WIPs), it is not surprising that EPA's evaluation of the New York WIP found shortfalls in pollution loading reductions. As a result of these perceived shortcomings, the Draft TMDL proposes that New York be subject to "high-level backstop allocations." The proposed backstop actions focus on federally-permitted pollution sources, but do not represent achievable or cost-effective means of reaching the desired load reductions. In New York, the regulated sources (wastewater treatment plants, animal feeding operations, and municipal separate storm sewer systems (MS4s)) represent a small fraction of the pollution sources. The proposed actions would impose extreme economic hardship on watershed residents, without producing the desired improvements in delivered load.

The proposed federal backstop actions do not constitute a credible strategy for achieving water quality standards in the Bay and should thus be eliminated. EPA should instead engage in constructive partnerships with the states to develop realistic, economically viable water quality improvement strategies and identify sources of funding to implement those strategies.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding allocations to New York.

Comment ID 0319.1.001.002

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

1. EPA's Proposed Wasteload Allocation For Sediments Is Neither Necessary Or Appropriate For Industrial and Many Municipal Facilities.

EPA indicates in the executive summary of the draft Chesapeake Bay TMDL that Virginia "does meet allocations for sediment (12 percent under)." This statement is based on the EPA review of the Virginia Watershed Implementation Plan ("WIP"). Nevertheless, EPA proposes a further tightening of the TSS limits for all dischargers to an equivalent effluent concentration of 5 mg/L. This level of effluent TSS concentration for industrial dischargers and for many municipal facilities, especially those that receive a high proportion of industrial wastewater, is extremely difficult if not impossible to meet given the typical solids composition in these wastewaters. This is certainly true for pulp and paper mill effluents. This fact is reflected in the higher TSS limits that are allowed by the New Source Performance Standards ("NSPS") for certain industrial categories. For example, a paper mill producing 3,000 tons per day of paperboard from

wastepaper is allowed under 40 CFR Part 430, Subpart J to discharge 13,800 pounds of TSS per day on a 30-day average. This equates to an effluent concentration of 87 mg/L at a discharge flow rate of 19 mgd. These are technology-based effluent limits for new sources which represents a high degree of treatment. These effluent TSS numbers are indicative of the practical limitations in removing TSS from the highly treated effluents discharged by pulp and paper mills.

EPA states in the Proposed TMDL (Section 4.5.2) that wastewater discharges from industrial wastewater facilities "do not represent a significant source of sediment (i.e. less than 0.5 percent of the 2009 total sediment load)." Given this acknowledgement and the fact that the proposed TSS levels in the Virginia WIP are acknowledged by EPA to be 12 percent under the proposed loading target/goal, the proposed significant tightening of effluent TSS in industrial discharges is perplexing and totally unwarranted. If the TMDL is finalized as proposed, it would result in the expenditure of millions of dollars by industrial dischargers with no assurance of meeting the artificially low standard proposed and with little or no benefit to the Bay.

The impact of this approach on point sources will result in huge economic implications for a de minimis source that has no chance of impacting the desired overall result. It is imperative that EPA re-consider their sediment control proposal.

Response

Please refer to the response for comment 0299.1.001.006 for additional information on sediment allocations to WWTPs.

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0319.1.001.005

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

4. Apply Wasteload-Reductions Across All Discharges So That Point Source Facilities Are Not Disproportionately Impacted

To achieve the necessary reductions required by the Proposed TMDL it is unfair and punitive for EPA to focus solely on permitted dischargers. EPA acknowledges this approach in the Executive Summary of the draft TMDL where they state "For the most part in making the hybrid allocations, EPA decreased the allocations to the point sources (over which

EPA has or could assert regulatory control) and increased the load allocations to unregulated nonpoint sources." Continuing to ratchet down the loadings from point sources without a comparable reduction in other sources will result in huge capital and operational costs without being able to achieve the ultimate goal for the Bay.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0319.1.001.007

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

In conclusion, Smurfit-Stone recommends that EPA modify the Proposed TMDL to address the significant issues raised by the company, VMA and AF&PA, and prevent unintended consequences by:

--Allowing the Commonwealth of Virginia to implement its WIP as it proposed (based on significant stakeholder involvement and commitment) and not implement the arbitrary backstop provisions proposed by EPA;

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0319.1.001.010

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

In conclusion, Smurfit-Stone recommends that EPA modify the Proposed TMDL to address the significant issues raised by the company, VMA and AF&PA, and prevent unintended consequences by:

--Applying the nutrient and sediment load reductions across all contributors so that an equitable distribution of costs can be achieved and the stated goals for the Bay can be accomplished.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0321.1.001.003

Author Name: Fanfoni Kenneth

Organization: Augusta County Service Authority, Verona, Virginia

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0324.1.001.002

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/l. TP at design flow) and possibly even tile flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0328.1.001.003

Author Name: Kimpton Steven

Organization: INVISTA

2. Waste Load Allocations for Delaware Industrial WWTPs Should Be the Same as those Allocations Found in the State WIP

The EPA has proposed imposing backstop allocations upon point sources within states who's Watershed Implementation Plans (WIPs) have been determined to be deficient in pollutant load reductions and/or reasonable assurance. EPA has proposed implementing high level backstop allocations for Delaware point sources. Under a high level backstop the waste load allocations (WLAs) for industrial WWTPs have been "reduced below the loads identified in the jurisdiction's draft Phase I WIP at a rate equivalent to significant municipal WWTPs ... (down to 3 mg/L TN and 0.1 mg/L TP)." EPA's published proposed Total Nitrogen limit for the INVISTA Seaford facility of 59,828 lbs/yr is inconsistent with and significantly lower than the Delaware draft WIP allocation.

INVISTA believes that the current WLAs established by Delaware and reflected in the draft Phase I WIP, are appropriate for industrial dischargers, including significant industrial dischargers. Even more importantly, WLAs for industrial dischargers should never be less than those specified in the state's WIP. The Delaware WIP allocations are based on a history of modeling exercises, data collection and local research. The modeling and data analysis has been transparent and enabled all stakeholders to understand the process and the data. The Delaware WIP accounts for the facility-specific nature of industrial discharges. The Delaware DNREC has taken the time to understand how the differing process and wastewater characteristics as well as economics of each industrial facility result in varying wastewater discharge characteristics and thus differing impacts on water quality. With this in mind and based on extensive modeling and data analysis, the DNREC has matched the appropriate WLAs with each industrial facility. EPA cannot ignore the work conducted by DNREC and thus should not apply arbitrary nutrient loading limits as a result of its backstop efforts. Therefore, we request that the EPA TN allocation for the INVISTA-Seaford site match the allocation designated by the Delaware Phase I WIP.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0332.1.001.004

Author Name: McNeal Brian

Organization: Rebkee Company

We at the Rebkee Company have great concerns with the draft TMDL and backstops proposed by the EPA, many of which have already been raised by Governor McDonnell and Secretary Domenech

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0334.1.001.003

Author Name: Troutman John

Organization: Buchart Horn, Inc.

The backstop provision also incorporates a numeric value inconsistent with industrial treatment technologies. Not all industrial wastes are equivalent to municipal characteristics. Economic burdens to industrial operations will only lead to assessment of whether operations can be successful in the United States or these manufacturing operations should seek foreign locations to meet budget and employee objectives. EPA needs to explain how industrial facilities with nitrogen levels greater than 100mg/l can achieve 3.0mg/l as a discharge limit.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0335-cp.001.005

Author Name: Halprin William

Organization: Tidewater Builders Association (TBA)

Finally, we have grave concerns about the most recent backstop allocations for Urban Stormwater in the WIPs for Delaware, New York, Pennsylvania, Virginia and West Virginia. Details regarding how and why the backstop allocations were derived and how they are expected to be attained are vital to understanding the TMDL as well as its overall impact. The agency must provide information on expected costs of meeting the standards and the impacts of those costs on the regional economy and the affordability of housing.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0355.1.001.003

Author Name: Williams Jesse

Organization: Williams Cattle Company LLC

3. We say, "NO!" to the EPA's "backstop" measures in the TMDL regulations. Rather than forcing states to regulate their way out of "backstops" we urge the EPA to allow Virginia to implement its own plans for achieving clean water goals without costly, burdensome regulations.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0358-cp.001.003

Author Name: Hassinger Mark

Organization: WestDulles Properties

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Please see the response to comment number 0232.1.001.004. For a comprehensive discussion of legal issues see EPA Essay Response to Legal Issues provided in response to comment number 0293.1.001.014.

Comment ID 0360-cp.001.003

Author Name: Wells Eric

Organization: WestDulles Properties

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Please see the response to comment number 0232.1.001.004. For a comprehensive discussion of legal issues see EPA Essay Response to Legal Issues provided in response to comment number 0293.1.001.014.

Comment ID 0362-cp.001.004

Author Name: Chillemi A.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0366-cp.001.005

Author Name: Melchione Pete

Organization: Southland Corporation

No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many

agricultural best management practices contained in the Virginia draft WIP.

Response

Thank you for the comment. For a comprehensive discussion of legal issues see EPA Essay Response to Legal Issues provided in response to comment number 0293.1.001.014. Please also see the response to comment number 0232.1.001.004.

Comment ID 0375-cp.001.004

Author Name: Wells Kyle

Organization: WestDulles Properties

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0376.1.001.009

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

EPA has acknowledged that Virginia's WIP met the sediment allocation required by EPA. See EPA's Draft Bay TMDL Executive Summary, page 7. As part of its allocation scheme for sediment, Virginia's WIP assigned an across-the-board point source TSS concentration of 30 mg/l for significant dischargers. This across-the-board application is in error, and it is VMA's understanding that Virginia will be correcting this assumption in the next iteration, recognizing site-specific capabilities and impacts of industrial point sources. Even with this change, the WIP will continue to outperform EPA's sediment target. Accordingly, EPA cannot demonstrate a need to impose either the partial or full backstop allocations for TSS.

Even if additional TSS reductions were necessary, EPA has not provided any evidence that those reductions must come from industrial point sources. Section 4.5.2 of the TMDL indicates that from the 75 significant and 1,446 non-significant industrial point sources, the estimated 2009 TSS waste load to the Chesapeake Bay was 0.5% of the total load. Furthermore, EPA notes that the TSS load for industrial point sources is not significant and thus does not present the TSS model by jurisdiction.

The model runs performed by EPA demonstrate that the TSS load from industrial point sources is not significant. The model input from DEQ set a TSS target of 30 mg/l for significant point source dischargers. EPA ran the model with that input but also ran it with a target of 5 mg/l. The results of those model runs show only minimal changes. This is because the TSS load from point sources is so de minimis that it has no impact on the model outcome, regardless of the concentration target that is assigned. The drastic reductions proposed by EPA will have no meaningful effect on the impaired segments of the watershed.

In short, there is no evidence in the record to support EPA's proposed allocations for TSS for industrial facilities in the partial or full backstop scenarios.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please refer to the response for comment 0299.1.001.006 for additional information on sediment allocations to WWTPs.

Comment ID 0376.1.001.015

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

EPA appears to have developed the full backstop allocations as a threat to Virginia -- revise your WIP or suffer the

consequences. EPA fails to provide any explanation for how or when the full backstop allocations would apply, other than a vague statement that they could be used if a state's WIP is not adequately modified. However, there is nothing in the TMDL record to support these allocations. And there is nothing in the law that would empower EPA to bear out this threat. The backstop allocations are arbitrary and capricious and should be stricken from the TMDL.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0376.1.001.016

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

EPA's full backstop allocations impose absurd reductions on industrial facilities. For example, for one significant industrial discharger in the York River, EPA's partial backstop WLA (which we support) is set at 23,617 lb/yr TN and 6,804 lb/yr TP (delivered loads). By contrast, the full backstop allocation for this same facility is 8,074 lb/yr TN and 1,098 lb/yr TP. Likewise, a significant discharger in the James is allocated a partial backstop WLA of 136,510 lb/yr TN and 2,329 lb/yr TP; under the full backstop allocation the same facility is assigned 33,096 lb/yr TN and 272 lb/yr TP. These reductions are severe, may be unachievable and, more likely than not, are unnecessary. However, EPA's record offers nothing about their achievability or need, let alone how they were derived. VMA has grave concerns about these omissions.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0378.1.001.006

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

The proposal in the EPA Backstop TMDL to arbitrarily move loading reductions from non-point sources to municipal and industrial wastewater facilities is fundamentally unfair, unrealistic and unachievable.

While the Pennsylvania WIP attempted to allocate reductions fairly among all sectors, EPA has taken a position in its Backstop TMDL that can only be described as irrational, unattainable, arbitrary and counterproductive.

In comments dated September 27, 2010, EPA purported to find that the Pennsylvania WIP was deficient in failing to provide "reasonable assurance" that the reductions would be achieved in all identified sectors. In particular, EPA claimed that the actions identified to address non-point sources, such as agriculture, stormwater, forests and on-lot septic systems, were not adequately described or sufficient. To address these "gaps", instead of framing actions to address the sectors that allegedly are not doing their share, EPA has proposed in its "Backstop TMDL" to impose a wholesale shift of the burden of reductions from these non-point sectors to municipal treatment plants and industries.

Under EPA's proposed Backstop TMDL, EPA proposes to push every municipal treatment plant to the "limits of technology" and for industries, proposes to push beyond that to levels that are well beyond any known technology.

EPA has described the limits of technology for POTWs as achieving 3 mg/l of nitrogen and 0.1 mg/l of phosphorus - although there are in fact very few treatment plants in the U.S. that have achieved those concentrations consistently. Pushing every municipal sewage plant to the extreme limits of technology will engender billions of additional dollars in investment, while the reductions in additional loadings are actually quite marginal. The Pennsylvania Municipal Authorities Association estimates an additional \$3-4 billion in capital requirements, over and above what our municipalities are already committed to expend. Further, changing course at this late date, after many municipalities have already designed and launched the process for modifying their facilities to meet the numbers in the Pennsylvania WIP, threatens to waste precious public dollars, and impose even more burdensome demands on municipal rate payers. Given the fiscal situation faced by many Pennsylvania communities during the slow recession recovery period, it is far from clear if or how they could access capital markets to meet such funding requirements. Indeed, some of the key communities in this watershed are already in "distressed municipality" status.

But EPA's approach to industry is even more unreasonable and arbitrary. Clearly without taking any time to evaluate the industries involved, or what measures they each have in fact already put in place to reduce nutrients, EPA performed what can only be described as an arbitrary, capricious and wholly unscientific formulaic exercise. EPA explains that the method used to come up with the numbers in the Backstop TMDL made "the assumption that the loads are reduced below the loads identified in the jurisdiction's draft Phase I WIP at a rate equivalent to significant municipal WWTPs going from the WIP loading level to an E3 loading level (down to 3 mg/L TN and 0.1 mg/L TP)". In translation, EPA calculated an average percentage reduction in loadings that municipal wastewater treatment plants might make to achieve the limits of technology, and then applied the same percentage to every industry - irrespective of the current situation at each industry, and irrespective of whether their situation was anything at all like a municipal treatment plant.

The astonishing results are buried in Table Q2 of the EPA TMDL, in a manner that only the very dedicated few could even find them, and arrayed in a manner that even fewer could understand what they mean. What Chamber members have found in Table Q2 is nothing short of disastrous, irrational and unimplementable. As examples:

- For one Chamber member in the inorganic chemicals business - an entity that just five years ago won awards for voluntarily reducing nitrogen loads by over 1 million pounds per year - EPA has proposed to reduce Total Nitrogen loadings from the level that the Pennsylvania WIP assigns (600,515 lbs/year) to just 3,693 lb/year, and to reduce Total Phosphorus loads from the Pennsylvania WIP value (1,577 lb/year) to 31 lb/year. Based on that facility's flow rates, the EPA Backstop TMDL would equate to requiring a TN concentration of around 1 mg/l or less, and a TP concentration of less than 0.01 mg/l. These resulting concentration values are well beyond (indeed, for phosphorus, one order of magnitude below) what EPA itself has acknowledged are the limits of technology. This Chamber member has candidly advised that if EPA is successful in imposing such limits, a shutdown of the facility - and the unemployment of some 900 workers - is the only viable option.

- For another Chamber member in the pharmaceutical industry, EPA has assigned backstop TMDL loadings of 9,050 lbs/year Total Nitrogen and 188 pounds/year Total Phosphorus, versus PA WIP loadings of 44,497 pounds/year TN and 11,748 pounds/year TP. Based on the flows at this industry, the proposed backstop effluent concentrations would be 1.42 mg/l TN and 0.03 mg/l TP. As before, these concentrations are orders of magnitude less than the "limits of technology" limits of 3 mg/l TN and 0.1 mg/l TP. This represents a significant discrepancy.

Furthermore, Section 8, pg. 8-16 of the draft TMDL states that for industrial backstop loadings, "the WLAs for industrial WWTPs make the assumption that the loads are reduced below the loads identified in the jurisdiction's draft Phase 1 WIP at a rate equivalent to significant municipal WWTPs going from the WIP loading level to an E3 loading level (down to 3 mg/L TN and 0.1 mg/L TP)." PA's WIP loading level for significant municipal WWTPs is 6 mg/L TN and 0.8 mg/L TP. Following the rationale presented in Section 8, pg 8-16, significant industrial WWTP's in Pennsylvania would be required to reduce TN levels by 50% and TP levels by 87.5% from what was presented in the WIP. For this pharmaceutical company, this would equate to backstop WLA's of 22,248 pounds/year TN and 1,468 pounds/year TP based on the pharmaceutical company's flows. Again, the backstop WLA's in Table Q-2 of the draft TMDL are 9,050 pounds/year TN and 188 pounds/year TP, presenting a significant discrepancy with the rationale on page 8-16. And again, we request EPA explain these significant discrepancies.

Table 9-4 of Chapter 9 of the draft TMDL presents individual WLA's based on Chesapeake Bay water quality standards. The WLA's for this same Chamber member are 21,595 lbs/year TN and 450 lbs/year TP. Based on the member's flows, these mass loads equate to concentrations of 3.4 mg/l TN and 0.07 mg/l TP, which are in fact closer to the proposed backstop TMDL concentrations of 3 mg/l TN and 0.1 mg/l TP than the backstop WLA's in Appendix Q-2.

The Chamber member is extremely confused and concerned about this glaring and seemingly widespread discrepancy between the loadings that EPA indicated they were intending to publish and what actually appeared in Tables 9-4 and Q-2.

In addition to TN and TP loadings, Table Q-2 of the draft TMDL assigns a backstop sediment load of 121,498 pounds/year. This is a reduction from this company's current effluent sediment load of 13,070 pounds/month (156,840 pounds/year) as established by pharmaceutical effluent limit guidelines. What is EPA's technical basis for the draft TMDL sediment loading, especially considering that the pharmaceutical ELG load has been established as Best Available Technology (BAT) for the pharmaceutical industry?

- These discrepancies and disparities are again exemplified in the backstop TMDL for a consumer products manufacturing industry located in the Susquehanna watershed. This industry has been a leader in the reduction of

nutrients in their wastewater effluent. They have voluntarily reduced nitrogen discharge loads by 40% since 1995, and 88% since 1985, resulting in total nitrogen removal of 640,000 pounds/year. These voluntary reductions resulted in this industry being recognized with a significant achievement award by the Chesapeake Bay Program's "Businesses for the Bay," and a Pennsylvania Governor's Waste Minimization Award. Annual nitrogen discharge loads are now less than 100,000 pounds. This industry was a critical partner with the introduction of legislation (phosphorus reduction to municipal sewage treatment plants via reformulation of dishwasher detergents), and reformulated their brand of dishwasher detergent to remove phosphorus.

The backstop TMDL loads in Appendix Q2 for this industry represent loadings that are significantly less than the loads than can be achieved by the limits of technology, and result in effluent concentrations that are orders of magnitude less than the published backstop TMDL concentrations of 3 mg/l TN and 0.1 mg/l TP. The backstop TMDL loads in Appendix Q2 are 34,232 pounds/year TN and 292 pounds/year TP. Based on these backstop TMDL loads, the calculated effluent concentrations are 1.46 mg/l TN and 0.012 mg/l TP using the industry's current actual discharge flow rates (less than the industry's rated flow rates). As with the previous examples, this is a glaring discrepancy with EPA's proposed backstop TMDL concentrations.

The proposed loads for this industry in the Pennsylvania WIP are 100,360 pounds/year TN and 5,441 pounds/year TP. EPA's proposed backstop TMDL would require an additional 66% reduction in nitrogen and 95% reduction in phosphorus compared to the loads in the Pennsylvania WIP, and would require technology that far exceeds the supposed "limits of technology." For an industry that has been a proactive leader in the voluntary reduction of effluent nutrient loadings, these additional proposed load reductions pose no value to the Bay, no cost-value for the industry, and in general just make no sense even if they had been calculated correctly.

- These severe discrepancies in the draft TMDL are not isolated to just industry. A Pennsylvania municipal wastewater treatment plant (POTW) has also noticed substantial calculation and/or waste load allocation discrepancies in their proposed backstop TMDL loadings. This POTW just completed an \$11 million upgrade to meet TN and TP limits mandated by PA DEP as part of their NPDES permit renewal. This plant upgrade expenditure resulted in a 67% increase in sewer bills for their rate payers. The new limits for the POTW are 6 mg/l TN and 0.8 mg/l TP, which are the effluent limits in the PA WIP. Based on the POTW's flow, these effluent limits equal mass loadings of 22,228 pounds/year TN and 2,963 pounds/year TP. In Appendix Q2, EPA has proposed backstop TMDL loadings of 4,695 pounds/year TN and 97 pounds/year TP. Not only do these proposed backstop loadings represent reductions of 78.9% TN and 96.7% TP from PA WIP limits just achieved through considerable expense, but they also equate to concentration limits of 1.34 mg/l TN and 0.026 mg/l TP. As with all of the prior examples, the proposed backstop loadings in Appendix Q2 for this POTW are orders of magnitude lower than EPA's intended backstop loading concentrations of 3 mg/l TN and 0.1 mg/l TP. Even if the Appendix Q2 backstop loadings had been calculated correctly, a requirement for this POTW to reduce effluent loads further than achieved by their \$11 million upgrade (and significant sewer rate increase) is completely ludicrous, unfair, and present minimal value to the Bay.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the

methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Comment ID 0378.1.001.008

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

At the same time, EPA's approach to setting cap loads for non-significant industries, without any facts, is unreasonable and doomed to failure. While the Pennsylvania WIP rationally targets loading reductions on significant dischargers, EPA proposes to extend nitrogen and phosphorus caps to each and every industry in the watershed, no matter how small. EPA's approach is unfair, irrational, and threatens the employment base of this Commonwealth.

The nutrient values listed in EPA's Backstop TMDL for non-significant industrial dischargers were developed in the absence of data, since in most cases these small discharges have not yet been subject to TN or TP monitoring. Thus, unburdened by facts, EPA pushed forward to assign TN and TP values - burying them in a table that almost no one except the most sophisticated user could discern. For many small facilities, the TN and TP values are simply listed as zero.

Taken together, such non-significant discharges are expected to contribute only a minor fraction of the TN and TP loadings to the Bay - a fraction that is so low that the Pennsylvania DEP rationally decided they simply did not warrant regulation at this time. Skewing such logic, EPA would nevertheless like to proceed to impose "zero" values, irrespective of the consequences, in order to satisfy an entirely bureaucratic compulsion to "regulate everything."

The imposition of unachievable "zero" limitations - mandated to become effective the next time each facility's NPDES permit is renewed -- will inevitably result in shutdown of those facilities.

It is hard to understand how a Federal Administration so vocally and repeatedly pledged to the preservation and recovery of employment would even conceive of such a proposal. Instead of trying to address the Bay's needs in a balanced and rational manner, EPA is simply proposing to punish those already doing their fair share. Creating a train wreck through the imposition of impossible and draconian mandates is not the way to achieve real Bay improvements.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0384-cp.001.004

Author Name: Page T.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0389.1.001.006

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

---EPA's Stormwater Proposal is Excessive

--Requires vast retrofits to only a few urban areas at a cost of \$400 million-2 billion

--Would require almost a zero discharge of runoff, which is stricter than any existing regulatory requirement (CWA. regulations and permits)

---EPA's Agricultural Proposal for NY Would Hurt Farms

--Would necessitate that NY farms engage in interstate trading to offset nutrient loading. This would involve small farms buying credits from large WWTPs in MD & VA, which is only a paper loading reduction and no real benefit to the Bay.

--Treats 40 head farm like a permitted Large CAFO (700+ dairy cows) by requiring strict implementation of costly management practices.

--Fails to account for a 30% decrease in farm animals in the Southern Tier since 1985.

--Incorrectly assumes that NY does not have enough land to support existing manure management from farms.

--Reliance on source reductions means that farms will go out of business in order for NY to meet its proposed allocation.

---EPA's Nitrogen Limits for Wastewater Provide Little Benefits to the Bay

--For NY wastewater treatment plants, 50-90% of nitrogen in the effluent does not reach the Bay due to natural in-stream processing

--EPA's requirements will result in additional treatment in NY plants and the reconstruction of entire facilities at a cost that could reach as high as \$500 million with little benefits to the Bay.

Response

"EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0394.001.003

Author Name: Heavner Brad

Organization: Environment America et al.

If any state is lacking in this regard, the EPA must swiftly follow through in its plan to backstop state plans with

additional load reductions. That is, if a state fails to demonstrate how it will reliably achieve pollution allocations in a particular sector, the EPA should transfer those allocations to another sector so that the state will achieve its overall assigned TMDL pollution allocations. This will be especially critical in the case of nonpoint pollution. The EPA must use the final TMDL to re-allocate nonpoint load reductions to point sources, like sewage treatment plants, whenever a state fails to demonstrate how it will achieve its required nonpoint reductions.

Response

Thank you for comment that we interpret as support for the TMDL, Please refer to the response for comment 0246.1.001.004.

Comment ID 0394.001.012

Author Name: Heavner Brad

Organization: Environment America et al.

Enforce the TMDL and the WIPs. In a number of documents the EPA has described certain enforcement actions it could take if states do not meet the goals of the TMDL or their own WIPs. The EPA took its first enforcement step by threatening a federal backstop for states that do not adequately demonstrate how they will achieve the TMDL pollution reduction numbers. The backstop is simply the EPA's means of ensuring those reductions occur, by shifting around some of the allocations within a state. The EPA should follow through on this threat, if necessary, with the release of the final TMDL in December 2010.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0405.001.005

Author Name: Lagowski Paul

Organization: BAE Systems

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public. More Draconian is that many of the industrial point sources are listed as having nutrient limits that appear to be arbitrary and are well below the limit of technology. This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0409.1.001.004

Author Name: Salada Ian

Organization: Penn State University

3. The TMDL lists backstop allocations imposed by EPA on wastewater treatment plant (WWTP) point sources of annual total nitrogen (TN) of 3 mg/l and annual total phosphorus (TP) of 0.1 mg/l at design flows, will create an unjustified economic burden on the customers of these system. These proposed total nitrogen and total phosphorus effluent limits are at the limit of technology. The Pennsylvania Department of Environmental Protection (PA DEP) has already imposed National Pollutant Discharge Elimination System (NPDES) Permit Limits of annual total nitrogen (TN) of 6 mg/l and annual total phosphorus (TP) of 0.8 mg/l at design flows. Each of these Pennsylvania facilities would have already spent tens of millions of dollars to comply with the PA DEP imposed NPDES Permit Limits.

a. The annual total nitrogen (TN) of 6 mg/l and annual total phosphorus (TP) of 0.8 mg/l at design flows can be achieved biologically in the activated sludge process through denitrification process and biological phosphorus uptake process. The activated sludge process is the common used process in Pennsylvania by WWTPs. The added benefit of the denitrification is the reduction of electrical energy consumption and net gain of alkalinity to the WWTP effluent. The reduction of electrical energy has a secondary impact of less air emissions from the electrical generating facility, which is generating electricity for the WWTP.

b. The annual total nitrogen (TN) of 3 mg/l and annual total phosphorus (TP) of 0.1 mg/l at design flows cannot be achieved biologically in activated sludge processes. Additional processes, such denitrification filters will need to be added to the facilities to achieve the total nitrogen removal requirements; chemical precipitation and filtration will be required to be added to the facilities to achieve the total phosphorus removal requirements. These upgrades will costs tens of millions of dollars per facility. Many of these WWTP facilities will not have the hydraulic profiles for the effluent from their existing processes to gravity flow through these new processes, and hence will need to consume additional electrical energy to pump the water to these new processes. These 4 processes require chemicals; methanol or another carbon source for the denitrification processes, and coagulants (i.e. aluminum sulfate, ferric chloride) for the phosphorus removal. The manufacture of chemical will require the consumption of additional electrical energy. This consumption of additional electrical energy will create more air emissions which lead to more deposition of contaminants of the Chesapeake Bay. The coagulants used to precipitate phosphorus will be collected on these filters and generate chemical sludges that will need to be disposed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0413.1.001.004

Author Name: Champion Traylor

Organization: Georgia-Pacific LLC (GP)

Sediment Control

EPA's Chesapeake Bay Program Office website states that the sources of sediment to the Bay are agriculture (60%), natural sources (21%), and urban/suburban runoff and in-stream sediment (19%). Furthermore, Section 4.5.2 of the proposed TMDL states that the estimated 2009 TSS waste loads from industrial facilities to the Chesapeake Bay is only 0.5% of the total load. In contrast to EPA's own data, EPA's proposed control of point sources for TSS under the backstop measures in the draft TMDL to address the sediment impairment in the Chesapeake Bay is unfounded and is not based on sound and reasoned science to resolve the impairment. The sediment of concern is primarily inorganic in nature, and is associated with erosion from upland land surfaces and erosion of stream corridors (US Geological Survey, A Summary Report of Sediment Processes in Chesapeake Bay and Watershed, 2003). Industrial effluent sources of TSS originating from biological treatment, such as from GP's Big Island Mill, primarily consist of organic solids. The organic content of these solids is typically between 70 to 90 percent and a large part of the organic content is capable of being biologically degraded. The amount transported as sediment would thus be reduced considerably versus the total amount of TSS originally present. The National Council for Air and Stream Improvement (NCASI) has shown that any such solids originating from a pulp and paper mill are organic in nature and have a very low available nutrient component (Dr. William E. Thacker, A Review of the Characteristics and Fate of Suspended Solids Discharged with Biologically Treated Effluents from Pulp and Paper Mills, NCASI, October 2010 - note: see VMA comments for reference).

The ability of a wastewater treatment plant to meet extremely low effluent TSS limits is dependent on the type of wastewater treated. EPA originally established technology-based guidelines recognizing the unique aspects of various industry types. EPA's proposed TMDL does not make such distinctions, instead applying an across-the-board allocation based on a treatment technology achieving 5 mg/l for municipal effluent. The filtration technology available would not be

capable of achieving a TSS concentration of 5 mg/L in many industrial settings due to the nature of the TSS generated. Again, a more site-specific determination of appropriate limitations, and an analysis of the need for such limitations, is necessary but missing from EPA's draft TMDL. [See VMA comment]

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0299.1.001.006 for additional information on sediment allocations to WWTPs.

Comment ID 0414.1.001.007

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Uncertainty of TMDL Requirements Delays and Prevents Compliance and Adds Cost

POTW's typically deliver complex treatment plant upgrades that take about 5 to 6 years from start of planning to initiation of operation. The EPA construction grants program experience was even longer from start to finish.

Given that Pennsylvania developed its CBTS in 2004 through 2006 and that many POTW's have already received annual cap loads and compliance schedules in their NPDES permits with EPA's encouragement and approval and started construction and given that EPA has announced backstop cap loads based on effluent concentrations that are 50 percent of the CBTS limits for total nitrogen and 12.5 percent of total phosphorus:

1. What should a POTW in a planning phase plan for? Should it plan for the CBTS limits or the backstop limits or both?
2. The same question for a POTW under construction? Should it change order in extra treatment?
3. What about the Milton Regional Sewer Authority. Our project is almost ready to be bid. What should we build?
4. Even if EPA does not deploy backstop limits with the initial issuance of the TMDL, what assurances will EPA make that backstop limits will not be deployed at any of the two year reviews or at the end of the current NPDES permit term?
5. Will POTW's be able to succeed in arguing financial impossibility in cases where they have gone into substantial debt to achieve the CBTS limits and are subsequently subject to backstop limits?
6. How will long term contracts that POTW's may have for the purchase or the sale of credits be dealt with if backstop limits are deployed or in the case that thresholds for the creation of credits changes?
7. Similarly, how will nutrient credit generation and purchase be calculated given different delivery ratios in the 5.3 model versus the 4.3 model upon which the trading program has been built?

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Regarding specific comments on a jurisdiction's WIP, please refer to the response for comment 0034-cp.001.001.

Please see the response to comment 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to comment 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0414.1.001.009

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Reallocation Of Loads To Other Segments Is Unjustified and Unfair

The EPA conclusion that the failure of the agricultural and developed segments to meet their allocations should not be a reason to reward those segments by reducing the allocations of the point sources and assigning the difference to the agricultural and developed segments. EPA, in fact, rewards the non-attainment segments, but penalizes the point source segment which is the best performing and closest to compliance segment.

Using the EPA reasoning, point sources should stop compliance, appeal their permits and refuse to implement nutrient reduction so that they receive the same reward as the agricultural and developed segments. This makes no sense.

1. What are the expected additional capital, annual, and present worth costs associated with implementation of the backstop limits of 3 mg/l total nitrogen and 0.1 mg/l total phosphorus?
2. What are the expected savings in capital, annual, and present worth costs associated with implementation the reallocation of additional total nitrogen and total phosphorus to the agricultural and developed segments?
3. What analysis has EPA made on the social and economic impacts of such re-allocation?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0418.1.001.004

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

3. EPA's Stringent Backstop Allocations Comprise a Reasonable and Legally Warranted Response to Inadequate State WIPs.

NRDC is supportive of the general approach to backstop allocations that EPA has chosen, which focuses for the most part on lowering point source WLAs to better ensure that needed reductions will take place. We agree with this approach because EPA has more authority to guarantee that reductions occur as needed from point sources (including, for instance, objecting to NPDES permits with inadequate WQBELs). However, NRDC stresses that EPA must commit to expeditiously establish the allocations and take the other actions outlined in the backstop TMDLs, rather than simply being prepared to do so upon failure of any state to meet a deadline or other requirement of its WIP or 2 Year Milestones.[FN 10]

[FN 10] See generally 33 U.S.C. 1313(d)(2) (providing for corrective EPA action within 60 days of inadequate TMDL submission).

Response

Thank you for the supporting comment. Please refer to the response for comment 0246.1.001.004.

Comment ID 0418.1.001.005

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

NRDC is concerned by one other element of the backstop allocations. EPA indicates that its backstop will include "finer-scale allocations," such as "individual WLAs for the significant municipal and industrial wastewater discharging facilities and sector-specific aggregate WLAs for stormwater, CAFOs, and nonsignificant municipal and industrial wastewater discharging facilities" in the non-tidal states (PA, WV, NY). This is something that already exists for the tidal jurisdictions. If we understand correctly, this means that the non-tidal jurisdictions presently have WLAs only for point sources generally, and we believe that finer-scale allocations are necessary irrespective of where the discharge is in the watershed. For example, EPA guidance provides that, in the case of stormwater discharges,

EPA recommends expressing the wasteload allocation in the TMDL as either a single number for all NPDES-regulated storm water discharges, or when information allows, as different WLAs for different identifiable categories, e.g., municipal storm water as distinguished from storm water discharges from construction sites or municipal storm water discharges from City A as distinguished from City B. These categories should be defined as narrowly as available information allows (e.g., for municipalities, separate WLAs for each municipality and for industrial sources, separate WLAs for different types of industrial storm water sources or dischargers).[FN 11]

In other words, EPA seems to contemplate that there will always be at least a WLA for stormwater discharges, and a TMDL should have individual WLAs for identifiable segments of the stormwater universe. In our view, this should also be the case for other point source sectors - CAFOs, non-significant industrial & municipal dischargers, e.g. - and significant facilities should have easily-calculable individual WLAs. Given that NPDES permits will in any event have to have WQBELs that "are consistent with the assumptions and requirements of any available wasteload allocation for the discharge," [FN 12] this work is essential anyway.

[FN 11] Memorandum from Robert H. Wayland, III, Director, U.S. EPA Office of Wetlands, Oceans and Watersheds & James A. Hanlon, Director, U.S. EPA Office of Wastewater Management, to U.S. EPA Regional Water Division Directors (Nov. 22, 2002), available at http://www.epa.gov/reg3wapd/tmdl/pa_tmdl/wissahickon/WissahickonTMDLI.pdf.

[FN 12] 40 CFR 122.44(d)(1)(vii)(B).

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. EPA disagrees with commenter's characterization of legal requirements for individual WLAs. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0418.1.001.006

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

In light of the deficiencies in the Draft Phase I WIPs, NRDC generally agrees with EPA's commitment to assert a range of backstop TMDLs where state WIPs failed to either meet expectations or failed to account for sufficient progress toward nutrient and sediment reductions. The increasing degrees of severity in EPA's backstop responses appear soundly tailored to achieve reductions by reducing allocations to point sources subject to NPDES permit and other oversight authorities. The backstop adjustments of allocations where state WIPs are too speculative in one of several

ways, including "[h]eavy reliance on trading to finance reductions and offset growth, but no commitment to adopt critical trading components such as clear baselines, liability, enforceability, tracking, and regulatory drivers" are reasonable exercises of EPA's responsibility to require "reasonable assurances" that states will reduce pollutant loading to TMDL allocation levels.[FN 13]

[FN 13] See Draft TMDL at pp. 8-6, 8-7.

Response

Thank you for the supporting comment. Please refer to the response for comment 0246.1.001.004.

Comment ID 0418.1.001.014

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

While we hope for greater assurances in the revised WIPs due to EPA before the issuance of the Final TMDL, we have significant concerns that the level of assurances so far provided by the states falls far short of the mark. We encourage EPA to maintain its strong backstop pressure, and to insist that revised Phase I WIPs fully address the shortcomings identified by the Agency's review of the initial drafts. EPA should not accept, as "reasonable assurance," revised WIPs that do not envision specific binding commitments and other structures to assure that adequate funding, policies, and regulations are in place to assure that load reductions will be achieved.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0418.1.001.019

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

we urge EPA to calculate all Bay states' backstop allocations based upon a strong standard for post-construction stormwater discharges from new development and redevelopment, such as a requirement that discharges be managed according to objective, numerically expressed restrictions on post-construction flow, volume and duration.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0418.1.001.022

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Throughout the Bay watershed, as with the rest of the nation, a significant portion of the developed landscape falls outside the jurisdictional boundaries of permitted MS4s. As EPA has noted in a related context, increasing the ability of this program to reduce stormwater pollution may depend on expanding this jurisdictional area. We encourage EPA to approach this effort through a two-fold effort: first, as we note above, EPA should consider exercising its own residual designation authority, using the discretion provided by section 402(p)(2)(E) of the Clean Water Act; and second, EPA should insist that all Bay States comply with their RDA obligations, whether as a matter of "reasonable assurance," or in its exercise of its responsibilities under section 117. Maryland, for example, notes that "non-regulated urban" stormwater discharges account for significant portions of its overall nitrogen, phosphorus and sediment loadings.[FN 36]

At a minimum, Clean Water Act section 402(p)(2)(E) stresses the importance of federal and/or state designations of additional areas subject to stormwater management controls when runoff from these areas impairs water quality. At least initially, we agree with EPA's decision to leave RDA designations to the respective Bay States. Nevertheless, EPA should express a clear preference, as well as guidelines or detailed expectations, for the kinds of discharges for which states should consider RDA designations. Moreover, reliance on significant state use of RDA designations is an appropriate way to calculate the backstop TMDL allocations. To the extent that states fail to designate and require permits of areas that are significant contributors of stormwater pollutants, EPA should step in to do so. EPA designations may be an efficient tool for targeting particularly problematic categories of stormwater loading across the Bay watershed. Notably, EPA's exercise of its Residual Designation Authority has the effect of converting stormwater loadings from being Load Allocations to binding, enforceable Waste Load Allocations, implemented through NPDES permits and providing greater assurances that reductions will, in fact, be achieved.

[FN 36] MD WIP at ES-6, ES-7.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0430-cp.001.004

Author Name: Owens James

Organization: Hampton Roads Association for Commercial Real Estate

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

· No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0431.1.001.003

Author Name: Tolbert James

Organization: City of Charlottesville, Virginia

The EPA backstops requiring 50% of urban land to meet aggressive performance standards through retrofit/redevelopment in the City of Charlottesville is unnecessary, unfounded and inappropriate. The cost of this requirement is expected to be \$15.6 million per year and there is no scientific evidence that this level of treatment is needed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0434.1.001.004

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

--Even if EPA did have that authority, there is no evidence in the record to support its rejection of Virginia's WIP, especially the WIP provisions that relate to agriculture.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0434.1.001.006

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

--Virginia's Agricultural Stewardship Program already provides a sufficient backstop for achieving agricultural reductions.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0436.1.001.009

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

At the outset, the Hampton Roads Localities wish to make clear that they are supportive of the TMDL's goals as reflected in their ongoing commitment of significant resources to implementation of their MS4 programs. Further, the Localities are supportive of and are prepared to commit more resources to their MS4 programs if needed to help restore the Chesapeake Bay and protect the James and York rivers, but the commitment of more resources must be supported by sound science. Unfortunately, however, as explained below, the TMDL lacks a sound scientific basis. Consequently, the Localities have very little confidence in the accuracy of the James and York river basin-wide backstop allocations in general and the urban runoff sector backstop allocations in particular. Further, even if one assumes for the sake of argument that these allocations accurately reflect the load reductions needed to restore the Bay and protect the James and York rivers, the magnitude of the tasks and estimated costs of achieving the load reductions are so great that it is not reasonable to expect that the reductions can be attained by EPA's 2025 deadline.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all stakeholders involved including federal agencies and state and local jurisdictions. EPA encourages all stakeholders to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its stakeholders and jurisdictional partners in order to achieve this.

Comment ID 0442.1.001.013

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

11. EPA and States Should Require Greater 'Reasonable Assurance' from Agricultural Sources and Avoid Placing Undue Burden on Regulated Entities

State WIPs should provide more reasonable assurance that agricultural-based load allocations can be met so as to avoid federal imposition of backstopping measures on regulated sources such as MS4 stormwater permittees and municipal wastewater treatment plants. This is especially important because cost effectiveness studies have indicated that many agricultural practices can reduce pollution at a lower cost/pound than stormwater practices, particularly retrofits.[FN3]

Example:

As EPA noted in its evaluations of the Virginia draft WIP, that document fails to provide enough assurance that the level of agricultural BMP implementation assumed by the plan will actually occur. That is one of the major reasons why the EPA proposed highly ambitious levels of stormwater retrofits in its backstop options. Given that these proposed levels would be prohibitively expensive to achieve and may be unobtainable for other reasons, such as scheduling and site constraints, a more realistic approach would be to achieve more reductions from implementation of agricultural practices (ref. Section 7. Reasonable Assurance & Accountability Framework).

Recommendation #11: Pursue Additional Reductions from Non-regulated Sources

EPA and the states should outline various strategies for pursuing additional reductions from non-regulated sources and quantify the amount of 'unregulated' loads that are not currently being required to be reduced. This should include very clear programmatic and potential policy approaches, potential enhanced funding, and use of regulatory options as they may exist - as well as the potential load reductions that could be achieved through such measures so that policy makers can fully evaluate how best to approach this issue (ref. Section 4.3 Pollutant Source Sector Contributions, & 4.7 Nonpoint Source Load Summaries). Ultimately achieving and maintaining the Bay's water quality will require that all loads are fully accounted for and managed to some degree.

[FN3] (See "Cost Effectiveness Strategies for the Bay: Smart Investments for Nutrient and Sediment Reduction," Chesapeake bay Commission, 1997)

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0443.2.001.007

Author Name: Moore Shannon

Organization: Frederick County Government

The County provides the following comments on the Executive Summary of the TMDL: p. 7-8: "Once EPA evaluated a WIP and found shortfalls in pollution loading reductions and/or assurance that reductions would be achieved, EPA included only the parts of the WIP that it determined to be adequate and appropriate in its TMDL allocation. EPA then determined how to make up that shortfall and/or insufficient amount of reasonable assurance for the remainder of the allocation. EPA considered varying levels of federal backstop allocations that adjusted loads delivered to the Bay to ensure water quality standards are met. The result is a draft TMDL that merges jurisdictions' WIP allocations with varying degrees of federal backstop allocations in all seven jurisdictions, as well identification of additional federal actions that EPA is prepared to take if jurisdictions do not achieve milestones on schedule."

- If this is the case, then all of our comments about the WIP also apply to the draft TMDL, seeing as how it is a hybrid with the WIP. We are attaching our comments about the WIP in regards to this section.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Regarding specific comments on a jurisdiction's WIP, please refer to the response for comment 0034-cp.001.001.

Comment ID 0445.1.001.002

Author Name: Lerch Joe

Organization: Virginia Municipal League (VML)

We respectfully request removal of the federal "backstops".

Understanding there is a question as to whether EPA has the legal authority to employ backstops as part of Virginia's draft WIP; VML questions their applicability at this stage in the process. Specifically, we will not fully realize the success or failure of specific parts of the WIP until actual implementation begins. Additionally, it is premature to determine that the WIP is inadequate when we have not even begun the process of determining actions to be completed at the sub watershed level with Phase 2 of the WIP. Indeed, we view this as an iterative process where the Phase 2 WIP and subsequent 2-year milestone evaluations will result in changes to improve the TMDL. Lastly, and consistent with the theme of our comments, absent federal and state appropriations to carry out the backstop measures there is no "reasonable assurance" that the draft TMDL can be implemented. In summary, VML contends that the 2-year milestone evaluations will be the appropriate time to evaluate whether the EPA needs to consider additional measures in order to meet target load allocations.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0450.1.001.005

Author Name: Yates J.

Organization:

3. The serious deficiencies evaluation by US EPA for the West Virginia Watershed Implementation Plan resulted in "aggressive" backstops. These backstops have serious implications for the state. First, the 3mG/L for nitrogen pushes the limit of existing technology. The threat of instituting measures for livestock operations like "precision feed management" for almost all animals in the watershed are indicative of a heavy handed federal dictator, not a federal partner. What is truly discerning is the fact that US EPA's own experts sent out to the state could not even identify practices called for in the proposed backstops (precision feed management).

Response

Please refer to the response for comment 0229.1.001.005. Please also refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its jurisdictional partners in order to achieve this.

Comment ID 0452-cp.001.004

Author Name: Atkinson Dick

Organization: Virginia Soybean Association

Much work has been done by agriculture, and we believe we have been the leaders in working to reach our goal of a cleaner Chesapeake Bay. The systematic system which the State and Ag have been pursuing has been and will continue to work if backstops are not implemented which will burden all interested parties in the Bay watershed.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0457.1.001.003

Author Name: Zaepfel Patrick

Organization:

3. At least with regard to Pennsylvania, the Draft TMDL differs significantly from state Watershed Implementation Plan ("WIP"), without explanation or examination of the state's reasoning for its proposal. The Pennsylvania WIP allocated 1,820,139 pounds per year of Total Nitrogen ("TN"). The Draft TMDL allows only 413,449 pounds per year of TN. The Pennsylvania WIP allocated 64,683 pounds per year of Total Phosphorus ("TP"). The Draft TMDL allows only 4,181 pounds per year of TP. The Draft TMDL fails to explain the basis for this extreme differential and to provide adequate analysis of the Pennsylvania WIP and the assumptions and goals underlying it.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0458-cp.001.004

Author Name: Cooper Michael

Organization: Brandywine Realty Trust

4) No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0462-cp.001.003

Author Name: Blair C.

Organization:

3. Virginia has an excellent plan given the present economic situation and proven data. Virginia should be allowed to implement it without the force of EPA 'backstops' that will be costly and burdensome on all sectors.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0464.1.001.006

Author Name: Bush J.

Organization: Virginia Forest Products Association (VFPA)

Finally, we have serious concerns about Federal Backstops. EPA does not need to substitute its version of heavy-handed, government regulation if the state chooses to build off of the incentive-based practices and programs that have resulted in progress over these many decades.

EPA's "backstop" measures put in the TMDL will certainly result in more costs for permitted facilities, such as large animal feeding operations, processing facilities, and urban landscapes. We question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirements are both unclear. Instead of forcing states to regulate their way out of "backstops," we urge EPA to allow Virginia to implement its own plans for achieving clean water goals-without costly, burdensome regulations.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0467.1.001.008

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

III. EPA's "Backstop Allocation" Approach

A. Neither the Clean Water Act nor its implementing regulations permit EPA to unilaterally impose the "backstop allocation" approach on Pennsylvania and, more specifically, point sources, because the Clean Water Act reserves loading determinations to the states.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0467.1.001.012

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

How will EPA address financial impossibility cases, where a POTW has gone into substantial debt to achieve the CBTS limits and are subsequently subject to backstop limits?

How will long term contracts that POTW's may have entered into for the purchase or the sale of credits be dealt with if backstop limits are utilized or in the case that thresholds for the creation of credits changes?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0467.1.001.017

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

V. Monitoring and Modeling Data

A. The draft TMDL cites a number of factors addressed through the watershed model, including the assertion that "non-regulated non-point sources of nitrogen, phosphorus and sediment are fully considered and evaluated...in terms of their relative contributions to water quality impairment of the Chesapeake Bay's tidal waters." If EPA decides to proceed with its "backstop allocation" approach, regulating only point sources of pollutants to the Bay, will the TMDL cease to be scientifically sound and reliable because the non-point source sector has been taken out of the regulatory equation?

B. Watershed model data has been unavailable for review or has been available only in extremely complex and large data sets that are unusable to the public. Beginning in mid-summer, numerous requests have been made to the Department to release the 5.3 delivery ratios. The Department never provided that data, indicating that the Department could not obtain the data from EPA. Only several days before the end of the comment period did EPA furnish the delivery ratios, first in a file that contained over 1.4 million lines of data, then in tables which included all Pennsylvania NPDES permits. Furthermore, the data was not sorted for significant point sources and did not identify 1, 2, and 3 POTW's or provide the facility names. Delivery ratios are critical to evaluating compliance paths for POTW's.

1. Is the modeling so incomplete that moving forward with the TMDL is unwise?
2. What is the status of completion of the 5.3 Chesapeake Bay Watershed Model?
3. Will each new model run in the future necessitate changing to the TMDL and all the policy, regulation, programs, etc. that result from the TMDL?
4. Do delivery ratios decline with reduced nutrient loadings? If that is the case, have reduced delivery ratios been forecast in the model to decline in future years? This question is based on the demonstrated tendency for lower concentrations of nutrients to be consumed nearer the point of discharge than the instance where large concentrations are discharged.
5. Do delivery ratios change with climate change and has this been forecast in the model?

VI. Nutrient Inputs to the Bay Is a Mere Estimate

A. While POTW's report exact nutrient contributions in their discharges in their monthly DMR's the volume of nutrients entering the Chesapeake Bay is a modeling estimate. In the case of New York and Pennsylvania, continuous sampling for just a few points would allow the exact calculation of nutrient contributions to the Bay.

B. It is troubling that the exact amount of nutrients and sediment reaching the Bay from Pennsylvania is not known through continuous measurement, but rather estimated by model. The Department asserts that if more BMP's were reported in Pennsylvania, the model would predict that less nutrient and sediment would reach the Bay even if those BMP's had been implemented years ago. Is this assertion true? The point source community monitors its effluent in

accordance with their respective NPDES permits. Why does Pennsylvania not monitor what it discharges into the Bay? Previous inquiries indicate that it is not the Department's responsibility to undertake such monitoring, but rather the United States Geological Survey's. Why would the process of adding additional data into a model result in Pennsylvania discharging less to the Bay? This is not scientifically sound and questions the entire TMDL process.

Please confirm that the Department's assessment in the WIP is correct and that the simple reporting of more BMP implementation would reduce Pennsylvania's contribution to the Bay.

Response

Comment V. A.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment V. B.

Please see response to comment 0414.1.001.012.

Comment VI

Please see response to comment 0414.1.001.015.

Comment ID 0468.1.001.001

Author Name: Harry Jennifer

Organization: PennAg Industries Association

On behalf of PennAg Industries Association and the more than 600 Pennsylvania agribusinesses we represent, we are insulted that EPA would unveil a Backstop TMDL as a threat and consequence to Pennsylvania. Pennsylvania was proactive in devising a holistic approach to meeting our Chesapeake Bay obligations that included a united voice from the agriculture community, the urban sector as well as the wastewater treatment community.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0229.1.001.005.

Comment ID 0468.1.001.004

Author Name: Harry Jennifer

Organization: PennAg Industries Association

3. Pennsylvania Legislators, Regulators and citizens know what is best for the Commonwealth. The State must devise a plan to do our share in restoring the Bay. The Federal Government does not know what is best for Pennsylvania Citizens nor businesses operating within the Commonwealth. The threat of a "Backstop TMDL" being imposed by EPA is disrespectful to the accomplishments already achieved in Pennsylvania.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0475.1.001.006

Author Name: Frazier Katie

Organization: Virginia Agribusiness Council

G) EPA's proposed backstop measures and additional regulations

Virginia's WIP reflects some practices for both agriculture and turfgrass that we strongly believe, given proper implementation and funding, will result in significant water quality improvements, including:

- Agricultural Resource Management or Conservation Plans to meet the individual conservation needs of each farm will result in progress without mandating a "one-size- fits-all approach".
- Turfgrass/green industry practices through utilizing nutrient management plans, an1ending the content of certain fertilizer products, and educating homeowners, while carefully balancing the costs and unintended consequences of under-managed or under-fertilized turfgrass.

Simply put, if the state chooses to build off of the incentive-based practices and programs that have already resulted in progress for decades, EPA does not need to substitute its version of heavy-handed, government regulation. EPA's "backstop" measures put in the TMDL will certainly result in more costs for permitted facilities, such as large animal feeding operations, processing facilities, and urban landscapes.

As outlined in the legal analysis referenced earlier in these comments, we question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirements are both unclear. Again, instead of forcing states to regulate their way out of "backstops," we urge EPA to allow Virginia to implement its own plans for achieving clean water goals-without costly, burdensome regulations.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation

findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0479.1.001.004

Author Name: Gansler Douglas

Organization: Maryland Office of the Attorney General

With the establishment of the Chesapeake Bay TMDL, I commend EPA for setting stringent standards and exercising oversight of state implementation of those standards. Unfortunately, several of the states' draft WIPs contain serious deficiencies, including, in some cases, a failure to even attempt to meet the jurisdiction-wide allocations set for them as part of the TMDL planning process. See Section 8, Watershed Implementation Plan Evaluation and Draft Backstop Allocations, available at <http://www.regulations.gov/search/Regs/home.html#documentDetail?R=0900006480b5e745>. I applaud EPA for identifying the inadequate plans and for creating backstop allocations for point sources that will ensure the reductions outlined in the Bay TMDL will be met within a reasonable time period. If the state WIPs do not improve significantly in their final form, EPA should maintain the backstop allocations it has identified. And if any state WIP departs even further from its allotted allocation in its final revision, EPA should impose additional requirements to create reasonable assurance that all TMDL allocations will be met.

Response

Thank you for the supportive comment. For more information please refer to the response for comment 0246.1.001.004.

Comment ID 0480.1.001.008

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

EPA Has Properly Included "Backstop" Allocations in its TMDL

In its TMDL document EPA describes, thoroughly and accurately, the lengthy history leading to its development of the draft TMDL, including the legal framework (Sections 1 - 3), much of which has been summarized above. In Section 8, it describes the development by the states of their Watershed Implementation Plans, EPA's evaluation of them, and the use by EPA of "backstop" allocations which EPA developed, based on its exhaustive modeling and data-gathering efforts, to ensure that, where the WIPs fail to demonstrate eventual achievement of the loading caps, the "backstop" allocations will do so.

Over the course of more than two decades EPA has worked closely with the Bay states to develop effective strategies to restore the water quality of the Bay and to achieve compliance with water quality standards. The framework which

allows each Bay state to develop a WIP, in which the state may establish allocations for sources within its boundaries which will achieve water quality standards for each segment before EPA applies backstop allocations (only if needed), is part of that joint effort. In its WIP each state must also provide assurance that it has and will use the authority and resources necessary to ensure that its allocations will be fully implemented so as to achieve eventual compliance with water quality standards.

As discussed above, EPA is legally required to establish the TMDLs on its own under Sections 303(d) and 117(g) of the Clean Water Act. However, allowing the states the "first shot" at prescribing effective loading allocations for sources within their jurisdictions lets them determine which combination of point and nonpoint source controls will provide, from their perspective, the most cost-effective or preferable approach to achieve water quality goals, provided each segment's overall loading cap is satisfied. As EPA stated in Section 8.3: "Backstop allocations were established to fill a loading shortfall in the jurisdiction's draft Phase 1 WIP or to increase the level of reasonable assurance that the overall TMDL pollutant cap will be achieved." To the extent that a WIP does not provide a combination of load and wasteload allocations to sources and categories of sources which is sufficient to satisfy the TMDL requirements which EPA provided to the states during the summer of 2010, based on its modeling results, for any segment within its jurisdiction, EPA's "backstop" allocations were applied so as to reasonably assure compliance, as EPA is required to do under Clean Water Act Sections 303(d) and 117(g). Given the serious deficiencies in most of the draft Phase 1 WIPs it was necessary for EPA to make substantial use of the backstops.

The result of this approach is that EPA is holding itself ultimately accountable for ensuring that the resulting allocations meet the requirements of Section 303(d) while allowing the states to propose allocations of their own through their WIPs. For the reasons described above, this strategy, and EPA's implementation of it, are fully supported by the Clean Water Act.

Response

Thank you for the supportive comment. For more information please refer to the response for comment 0246.1.001.004.

Comment ID 0495.1.001.004

Author Name: Long Jim

Organization: Mattawoman Watershed Society

The need for a strong Bay TMDL with federal enforcement backstops is supported by Mattawoman's degradation in the face of continual warnings.

Mattawoman's recent decline [Uphoff, 2009] occurs in the face of a long history of alarms about the vulnerability of its remarkable assets to urbanization, not unlike the warnings and failed actions for the Bay at large. Hence it provides a lens that underscores the present inadequacy of state and federal enforcement of the Clean Water Act (CWA), and focuses the urgent need for a transition from voluntary to regulatory enforcement.

Among the warnings are:

- In 1990, Mattawoman's vulnerability to the growth inducing impacts of the new Mattawoman Wastewater Treatment Plant (WWTP) was expressed in a Memorandum of Understanding (MOU) between the funding participants, i.e., the EPA, MDE, and Charles County [MOU, 1990]. The MOU purported to alleviate secondary impacts. It is a great irony of the CWA that it is partly responsible for the WWTP, which enabled the development that has brought Mattawoman to its present precarious state.
- In 1992, a DNR fishery study concluded that Mattawoman represented "as near to ideal conditions as can be found in the northern Chesapeake Bay," and warned that it "should be protected from overdevelopment" [Carmichael, 1992].
- In 1996, the Maryland Department of Natural Resources (DNR) commenting on Charles County's Comprehensive Plan, noted that "[p]rotection of this watershed appears to be in direct conflict with the location and size of the development district" [DNR, 1996]. (The development district is an area 30% larger than Washington DC that blankets much of the Mattawoman watershed, and that was enabled by the EPA and MDE funded WWTP.) Yet resource protection within the development district (e.g. stream buffer width) is less than other areas in the county.
- In 1996, Mattawoman was designated as impaired on the 303(d) list in 1996 for excess nitrogen, phosphorus, and sediment. (It has since been removed for sediment.) [MDE,2005]
- In 1997, DNR wrote a report specifically outlining the vulnerability to development of Mattawoman and DNR lands within the watershed [DNR, 1997].
- In 1998, in the state-federal Clean Water Action Plan, Mattawoman was among only 17 of the 138 eight-digit watersheds in Maryland singled out as being both of very high quality and of very high vulnerability. Mattawoman's vulnerability stemmed from urbanization. The Clean Water Action Plan warned (emphasis added): "The State considers that these watersheds deserve special attention in order to address degradation that already is experienced in some areas before the pristine resources in the watershed are lost."
- In 2002, Mattawoman was again designated as impaired on the 303(d) list, now for impacts to the biological integrity of its benthic and fish communities in the nontidal river. [MDE, 2005]
- In 2003, the Army Corps authored the Mattawoman Creek Watershed Management Plan, and warned of the projected growth: "These intense development practices would have severe repercussions on the biological community and would decrease the habitat quality within the estuary" (emphasis added). The basis of this and other warnings in the plan was an extensive analysis of current land-use conditions and the impacts of projected growth determined from well-calibrated hydrological modeling as described above [ACOE, 2003].
- In 2005, EPA approved a TMDL for nitrogen and phosphorus.
- Also in 2005, concerns for the impacts of increasing impervious surface on Mattawoman's vaunted fisheries were highlighted in separate DNR reports. [Groves, 2005; Uphoff, 2005].
- In 2009, DNR reported a serious decline in fish-species richness and in the populations of remaining species in the freshwater-tidal estuary, and linked the declines to watershed urbanization [Uphoff, 2009]. Thus the consequences

warned of above are now evidently coming true at a rapid pace.

By detailing how continued warnings about an especially noteworthy eight-digit watershed are now coming true, the above list amply demonstrates the ineffectiveness of past strategies to protect the Bay at large against increasing urbanization. In spite of MS4 permits dating back to 1997, and purported "reasonable assurances" in a TMDL, Mattawoman's biological resources are waning. Given such data, we believe the justification for stronger EPA measures is self evident. In particular, the need for effective EPA backstops is critical.

As an example, consider Charles County's MS4 permit. In 2002, a condition of the permit required the county to retrofit 10% of its untreated impervious surface during each 5-year permit cycle. As explained in the appended comments to MDE, it appears that the county is falling seriously behind this requirement, with no incentive administered by the state to improve.

Similarly, in its annual MS4 reports, Charles County publicizes its Mattawoman Creek Watershed Management Plan [ACOE, 2003], when in fact it is not making progress on the most important recommendation in the plan, namely the protection of the Mattawoman stream valley (including tributaries). The plan is intimately connected to MS4, as it was undertaken as a condition of the county's first MS4 permit. In the plan, the Army Corps states unequivocally that "[p]rotection of the stream valley represents the single most important action that can be taken to protect the natural resources of the Mattawoman Creek." (Note that this conclusion was made in the absence of any freedom to adjust land-use scenarios, such as reconsidering the concept of a development district.) The county has had since 2005 the LIDAR-based stream valley delineation but in five years has failed to draft a protective ordinance.

In spite of these MS4 failures and the absence of any measures to begin meaningfully enforcing Mattawoman's TMDL, all while the Creek is exhibiting signs of decline [ACOE, 2003; TMDL, 2005; Uphoff, 2009], we note that MDE issued in 2009 permits for an airport extension that would bury ~800 feet of a Mattawoman tributary, channeling it in box culvert. This tributary drains to anadromous fish spawning reaches of the creek. Of the airport extension, the National Marine Fisheries Service (NMFS) stated "the runway realignment will have devastating impacts on the subject watershed" and concluded "we have significant concerns regarding the potential impacts on downstream resources and spawning habitat" [NMFS, 2001]. NMFS also emphasized the growth inducing impacts of a new reliever airport, stating "we are also concerned about cumulative impacts this proposal will have on wetlands and instream habitat throughout the local region." Similarly strong statements were made by the Army Corps, the National Park Service, and DNR. Unfortunately, EPA did not comment. Clearly a stronger federal oversight of all permits based on the Clean Water Act is called for if Bay restoration is to be successful.

Past history such as outlined here overwhelmingly justifies stronger federal enforcement of the Clean Water Act, which clearly confers the needed authority to regulate for clean water. Without stronger actions, such as much needed "backstop" enforcement of MS4 permits, Bay resources such as Mattawoman Creek, and by logical extension the Bay itself, will continue to experience chemical, physical, and biological degradation. The end result will be an impoverished environment for residents of the Bay watershed in the form of fewer recreational opportunities, lost ecological services, costly restoration measures, and the absence of sustainable economies based on the Bay's natural resources.

Response

Thank you for the supporting comment. Please refer to the response for comment 0246.1.001.004.

Comment ID 0496.1.001.006

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

At the outset, the Hampton Roads Localities wish to make clear that they are supportive of the TMDL's goals as reflected in their ongoing commitment of significant resources to implementation of their MS4 programs. Further, the Localities are supportive of and are prepared to commit more resources to their MS4 programs if needed to help restore the Chesapeake Bay and protect the James and York rivers, but the commitment of more resources must be supported by sound science. Unfortunately, however, as explained below, the TMDL lacks a sound scientific basis. Consequently, the Localities have very little confidence in the accuracy of the James and York river basin-wide backstop allocations in general and the urban runoff sector backstop allocations in particular. Further, even if one assumes for the sake of argument that these allocations accurately reflect the load reductions needed to restore the Bay and protect the James and York rivers, the magnitude of the tasks and estimated costs of achieving the load reductions are so great that it is not reasonable to expect that the reductions can be attained by EPA's 2025 deadline.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0497.1.001.005

Author Name: Hobbs Jack

Organization: Town of Amherst, Virginia

we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and also reduce the "flow basis" (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0504.1.001.004

Author Name: Elliott James

Organization: Citizens Advisory Committee to the Chesapeake Executive Council

the threat of backstops alone will be insufficient- More creative thinking about motivating state action is necessary. While we support the EPA in utilizing the backstop approach if necessary to supplement a lack of reasonable assurance in state actions, we think the draft TMDL needs to be more creative in motivating states to control pollution from non-point sources. The implicit threat of increasingly stringent federal "backstop" regulation of point source pollution to compensate for state inaction on non-point source pollution may not motivate all the states to seriously address non-point source pollution in the long run. From a cost-benefit perspective, it is inefficient to try to meet TMDL limits primarily by regulating point sources that experience diminishing marginal returns on pollution abatement. The political reality is that regulating non-point pollution sources personally involves far more people/voters in their daily lives, forcing behavioral changes or extracting a cost for not changing. The potential benefit for these affected people/voters is obscured by the framing of the TMDL as a plan for the health of the often geographically distant Bay, rather than the whole watershed and its numerous streams. From the deficiencies of most state WIPs and the absence of specificity on actions, it is likely that some elected leaders will not embark on a program of seemingly all cost and no benefit for their constituents. Blaming the EPA for more stringent regulations on point source polluters could be the preferred option.

Therefore, point source backstops alone will likely be insufficient to clean-up the watershed. The federal agencies should explore ways to tie federal assistance to the states in the Chesapeake Bay watershed for the very activities that produce the nutrient and sediment loads, like, agriculture subsidies and highway construction, to state progress on regulating non-point source pollution.

Unless more creative means to motivate state regulation of non-point source pollution are found, EPA will have to put a disproportionate amount of regulations on permitted point sources, which will be highly motivated to resist bearing the unbalanced burden of reducing nutrient and sediment pollution in the watershed. Concentrated costs in a relatively small group of actors could cause political push-back against the regulations. Progress on improving the water quality of the Bay under these circumstances would require sustained political support from the White House for decades (an unlikely scenario) and unfairly saddle many point sources with additional reductions that are not as cost-effective compared to [missing end of sentence]

Response

Please refer to the response for comment 0246.1.001.004.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all stakeholders involved including federal agencies and state and local jurisdictions. EPA encourages all stakeholders to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its stakeholders and jurisdictional partners in order to achieve this.

Comment ID 0512.1.001.001

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Lycoming County appreciates the opportunity to review and provide comments on the United States Environmental Protection Agency's (EPA) draft Total Maximum Daily Load (TMDL). Since 2007, the County has proactively worked to develop and implement a county-based nutrient management strategy designed to implement at the local level the goals and objectives of Pennsylvania's Chesapeake Bay Tributary Strategy. Lycoming County, working along with the Pennsylvania Departments of Environmental Protection and Community and Economic Development and other state and federal organizations, has invested more than \$600,000 in developing and implementing this strategy. Current public funding support committed to this effort to date stands at almost \$1.5 Million. The County supports EPA's efforts to implement the TMDL and DEP's efforts to develop a viable WIP to cost-effectively implement the TMDL. However, the County is extremely concerned about EPA's strategy to include a "Backstop TMDL" in the current process. We believe this will be detrimental to the County's efforts to implement its Chesapeake Bay Nutrient Management Strategy as well as impose significant burdens on its residents, businesses, other sectors, and wastewater treatment plants.

While contingency planning is always appropriate, the Backstop TMDL should not be introduced in this process until the Phase 2 WIPs are submitted in November of 2011. The Backstop TMDL that ramps up the treatment requirements for wastewater treatment plants and enforces more regulatory actions on other sectors could bring into question the validity of all voluntary actions taken by Lycoming County in implementing its Chesapeake Bay Nutrient Management Strategy during the past two years. The county has invested substantial resources while participating in the process and maintaining close coordination with both DEP and EPA in order to help us meet DEP and EPA expectations. We have worked aggressively to "do the right thing." We are concerned that at this critical moment in time, the Backstop TMDL will bring into question: "What is the right thing?" The threat of punitive backstop measures has also strained the positive relationships that have been built across source sectors at both the state and local levels. We need to get through the Phase II WIP process before we start questioning our strategies to make progress in cleaning up the Chesapeake Bay.

The County is very concerned about actions of other levels of government compromising the proactive efforts of our local government. The County hopes that the comments below provide EPA with a better understanding of the County's concerns and comments regarding the draft TMDL and its resolve to successfully implement the goals, objectives, and

strategic actions associated with its local-developed Chesapeake Bay Nutrient Management Strategy. These comments incorporate input received from local stakeholders, including members of the County's Chesapeake Bay Tributary Strategy Advisory Committee.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all stakeholders involved including federal agencies and state and local jurisdictions. EPA encourages all stakeholders to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its stakeholders and jurisdictional partners in order to achieve this.

Comment ID 0512.1.001.003

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #2 - The County's approach to addressing the requirements of the Chesapeake Bay agreement and the development of its Chesapeake Bay Nutrient Management Strategy is to bring stakeholders, made up of both point source and non-point source representatives, together to work toward a solution that is more beneficial for the entire community. The threat of a "backstop" TMDL that regulates point source entities has concerned all of the County's stakeholders. If implemented, it will place the point source entities (i.e., sewage treatment plants) and the non-point source entities (i.e., farmers) on opposite sides of the discussions and possibly result in "finger pointing". This will not be productive and will result in these two sectors not wanting to work together.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0512.1.001.005

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #7 - There needs to be a balanced approach to reducing the nitrogen and phosphorus from the Chesapeake Bay region. The draft backstop TMDL requires a significant amount of the responsibility on the point source discharges. The County's approach has been balanced between the non-point and point source entities. During the past few years, Lycoming County has built a county-wide nutrient credit trading program that is centered on the development of Best Management Practices (BMPs) for non-point sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0512.1.001.010

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #11 - The County recommends that EPA and DEP investigate the BMP improvements that already exist. The EPA should put the backstop TMDL requirements on hold until an accurate and reasonable inventory of existing agricultural BMPs can be developed. Assessing and documenting existing, uncounted BMPs should be a priority for the Phase II WIPs. The backstop TMDL should be postponed by EPA until after the Phase II WIPs are completed, and if backstop measures are enacted, they should be targeted geographically.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comments 0648-cp.001.002 and 0238-cp.001.002 regarding BMP credits for water quality improvements.

Comment ID 0515.1.001.004

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

A. The 3.0 mg/L Maximum TN Effluent Limit Is Not Attainable as LOT for WWTPs in Upstate New York

The EPA claims that a 3.0 mg/L maximum TN effluent limit is the LOT for WWTPs. Nevertheless, the EPA provides no scientific or technical basis to conclude that this limit is, in fact, feasible or attainable in our Upstate New York climate, especially considering that biological treatment processes "slow down" as the temperature of the influent decreases. In our case, we range from three to four months per year with influent temperatures less than 11 degrees Centigrade ("°C"). Over the past four winters, our lowest average monthly influent temperature has been 8.3°C, and the lowest daily influent temperature was 5.7°C. For the 12 months ending September 30, 2010, the arithmetic mean of our monthly average TN results is 6.12 mg/L, which is just slightly above the monthly design goal for our denitrification process. This past winter, our effluent maximum monthly average TN results were 7.20 mg/L for December 2009, 6.13 mg/L for January 2010, 6.35 mg/L for February 2010, and 5.93 mg/L for March 2010. Further, the following lend support for the proposition that denitrification (and corresponding nitrification) processes "slow down" in colder weather such that the "real world" LOT is nowhere near EPA's claimed maximum 3.0 mg/L for TN:

<<http://pubs.nrc-cnrc.gc.ca/rp/rppdf/s02-004.pdf>> - Development of Biological Nutrient Removal Technology in Western Canada, Journal of Environmental Engineering Science [National Research Council of Canada], Vo1. 1, 2002, pp. 33-43, Oldham [Stantec Consulting Ltd.] and Rabinowitz [Reid Crowther & Partners Ltd.] - concluding that production of a maximum 6 mg/L TN and 0.5 mg/L TP effluent has been shown to be feasible in cold weather climates of Western Canada. Given the moderating effect of the Pacific Ocean, the climatology of Western Canada has similarities to Upstate New York.

<<http://www.nywea.org/clearwaters/pre02fall/312030.html>> - Pilot Biological Nutrient Removal, Clearwaters [New York Water Environment Association], Vol. 31, No. 2, Summer 2001, Bodniewicz [Metcalf & Eddy] and Mahoney [NYC-DEP] - concluding that, in the New York City area's climate (which is significantly warmer than Upstate New York's on a year-round basis), there exists potential to produce an effluent in the range of 5-8 mg/L maximum TN. The report noted that, in all three pilot units studied, "significant problems arose with accurate DO [dissolved oxygen] control" and there were issues with reliable addition of methanol, a carbon source for denitrification. At our Facilities, we have also experienced these operational challenges, both of which present significant obstacles to translating theoretical and laboratory predictions into "real world" results.

<http://www.dep.state.pa.us/dep/deputate/watermgt/wsm/wsm_tao/InnovTechForum/InnovTechForum- IIA-Gilligan_1.pdf> - Demonstration of Low Temperature Nitrification with a Short SRT, WEFTEC 2000, Kos, Head, Oleszkiewicz, and Warakowski [Lotepro Environmental Systems & Services] - showing the reduction in nitrification rates and corresponding increase in solids retention time to achieve equivalent nitrification results in an activated sludge process at temperatures ranges from 7.5 - 20°C. "The ability of the conventional activated sludge process to nitrify is highly temperature dependent. At low winter temperatures, nitrification can be sustained only if the activated sludge process is operated at relatively high solids retention time (SRT) values". Key findings reported (and summarized in Figure 5 on p. 7 of the paper) include observation of an 81-83% reduction of the nitrification rate at 10°C in nitrifiers grown at 30°C and 47-59% reduction of the nitrification rate at 10°C in nitrifiers grown at 20°C as well as the fact that, in all cases, reductions in the nitrification rate measured under actual facility conditions were greater (i.e., the operational

nitrification rate was lower) than the "theoretical" reduction rates predicted by laboratory bench testing. This is a crucial point: scientific and engineering theories and laboratory "bench tests" most times cannot be replicated under "real world" conditions.

<http://www.chesapeakebay.net/content/publications/cbp_13136.pdf> - Nutrient Reduction Technology Cost Estimations for Point Sources in the Chesapeake Bay Watershed, November 2002, Nutrient Reduction Technology Cost Task Force of the Chesapeake Bay Program - stating it was determined by the NRT Cost Task Force that it would not be feasible and in most cases non-cost effective to consider a level of implementation in New York greater than TN <8.0 mg/L and TP <2.0 mg/L, especially with respect to smaller plants discharging 0.5 MGD or less.

<http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V6C-516MRFK-7&_user=10&_coverDate=11%2F26%2F2010&_rdoc=1&_fmt=high&_orig=search&_origin=search&_sort=d&_docanchor=&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=74dfd4b6dcb30826839ebb30c26aa82b&searchtype=a> - announcing a report to be published in the upcoming November 26, 2010 issue of the Journal of Hydrology (at pp. 507-514) on a study of biofilter columns in thermostat-controlled climate rooms (at 2, 7, and 20°C) to investigate the effect of low temperatures on nutrient removal, billed as concluding, "Unfortunately, nitrogen removal was poor."

To the extent the TMDL contains unattainable standards and unachievable results, the TMDL is not approvable.

B. The 0.1 mg/L Maximum TP Effluent Limit Is Not Attainable as LOT for WWTPs in Upstate New York

Although the EPA claims that a 0.1 mg/L maximum TP effluent limit is the LOT for WWTPs, the EPA provides no scientific basis to conclude that this limit is, in fact, feasible or attainable in our Upstate New York climate, especially considering the effect of colder temperatures on biological treatment processes as discussed above. In the Canadian study cited above, the demonstrated feasible maximum "real world" TP effluent average in cold weather climates is five times higher than what the EPA claims to be the LOT in the TMDL.

Again, to the extent the TMDL contains unattainable standards and unachievable results, the TMDL is not approvable.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0515.1.001.007

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

F. The EPA Provides No Technical Data to Justify Imposition or Effectiveness of "Backstop Allocations"

Nowhere in the TMDL does the EPA give any technical data to justify its menu of backstop allocations or provide any CBWM results that would demonstrate the effectiveness of each level of the backstop allocations. It is arbitrary and capricious as well as an abuse of discretion for the EPA to threaten backstop allocations in the absence of credible data demonstrating that the backstop allocations would produce any better WQ in a corresponding Bay watershed segment than the jurisdiction's WIP-I.

According to the USGS, if all Bay watershed jurisdictions had WQ equal to New York's, the Bay would not be impaired. Indeed, the CBWM estimates that New York contributes only 4% of total TN delivered into the Bay, 5% of TP, and 4% of TSS. Given the defects and reliability issues with the CBWM discussed and referenced above, it may actually be the case that New York's real delivered loadings are even lower.

As to WWTPs, the EPA's proposed backstop allocations for New York lack a rational basis because, collectively, the 28 significant WWTPs in New York are an insignificant source of TN (0.57% of total TN delivered into Bay), TP (1.13% of total TP delivered into Bay), and sediment (less than 0.5% of total sediment delivered into the Bay, and expressly acknowledged to be "insignificant" in the TMDL). Further, at the TMDL's assigned Delivery Coefficients for our WWTP, we would need to remove 1.6 pounds TN at EOS in order to prevent one pound of TN from being delivered to the Bay (at an assigned 63.9% Delivery Coefficient for TN); 2.2 pounds TP at EOS in order to prevent one pound of TP from being delivered to the Bay (at an assigned 45.4% Delivery Coefficient for TP); and 2.5 pounds Total Sediment at EOS in order to prevent one pound of Total Sediment from being delivered to the Bay (at an assigned 39.8% Delivery Coefficient for Total Sediment). Given New York's unimpaired WQ and given the extent of "over control" needed to achieve these levels of prevention of delivery into the Bay, the EPA's proposed backstop allocations mandate unattainable requirements, as discussed above, and inequitable reductions, as further discussed below.

It must also be noted that the levels of proposed backstop allocations which would limit WWTPs to discharges "based on current flows" are unrealistic as to those WWTPs serving communities with combined sewers where both the annual flows and daily flows are subject to high variability in proportion to precipitation as well as ice/snow storage and snowmelt. Especially in consideration of the value that a WWTP which treats stormwater from a combined sewer collection system contributes to overall Bay watershed WQ, the EPA must amend its proposed backstop allocations to account for variations in "current flow" from year to year for those WWTPs treating stormwater, perhaps by basing such allocations on a 10-year rolling average adjusted, of course, in proportion to any actual expansion or upgrade in WWTP capacity or capability. In this way, backstop allocations that are unattainable or impossible to meet can be avoided, as can permit violations due to natural causes.

Backstop allocations proposed for MS4s/urban stormwater/CSOs are also unrealistic and lack an EPA explanation of any basis for them or the effect that such allocations would have in each of the 92 covered segments in the Bay. It must also be noted that New York is a leader in control of this discharge segment as demonstrated by its recently updated "toolbox" of MS4 regulations, best management practices ("BMPs"), and publications providing technical assistance. The requirements for engineering reports to be submitted with all discharge applications, as well as

requirements to provide engineer certifications during implementation and operation, provide a high degree of assurance that New York will successfully maintain and improve its already non-impaired WQ in relation to discharges from this segment, yet the EPA fails to recognize, accept, or credit the effect of these improvements recently added and, thus, now "on the books".

As to agriculture, New York has an active program underway to add wetlands and riparian buffer zones to its agricultural lands in order to capture, retain, and/or treat nutrients and sediment. In acknowledgement that, on a proportionate basis, agricultural lands contribute large amounts of nutrients and sediment to the Bay watershed in New York as well as other state waterbodies, New York has made available more money to farms to protect watersheds and improve nutrient and sediment management than is presently being applied-for. A report released by the New York State Comptroller's Office within the past 10 days finds that available funds are going unspent, such that there is a high potential for carrying-out control measures on more of New York's agricultural lands within the Bay watershed. See, <<http://www.osc.state.ny.us/press/releases/oct10/102910f.htm>>. New York's Certified Agricultural Environmental Management ("AEM") Program, discussed in New York's WIP-I, constitutes a highly-effective means to implement BMPs and other practices that can further improve New York WQ in the Bay watershed.

Because of the large percentage of forest, open water, and low-density developed land (together, comprising about 72-76% of the New York portion of the Bay watershed) as well as the fact that most of the TN deposited into the New York portion of the Bay watershed originates in Midwestern states and Canada, the NYS-DEC is powerless to enforce a solution or effectively address this loading source in its WIP-I. In order to be fair, the EPA must make allowances for this in the TMDL as well as in the two-year milestones. With respect to the backstop allocations, New York should not be required to "over control" in other sectors so as to compensate for this source of TN loadings which it cannot control. Thus, it is the federal government which must "step-up", strictly enforce the CAA as to aerial deposition of nitrogen originating from emissions of power plants and "smokestack industries" in Midwestern states, and the federal government must negotiate an effective, enforceable treaty with Canada to provide meaningful control of this source. The TMDL should clearly address the steps the federal government will commit to take in this regard as well as the specific impact to be achieved in reduction of these loadings. The EPA's commitment to exercising leadership and control on a federal basis to eliminate interstate pollution sources which contribute significantly to the nitrogen loadings in the New York portion of the Bay watershed should be measured, monitored, and subject to accountability measures expressly stated in the TMDL.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0515.1.001.021

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

A. Do not enforce backstops for New York unless and until New York fails to meet its assigned WQ or required milestones.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0519.1.001.008

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

The Northern Virginia Regional Commission staff urges.... the USEPA remove the stormwater BMP "backstop" provisions until a full accounting of the Phase II WIPs has been completed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0520.1.001.002

Author Name: Jones Cy

Organization: World Resources Institute

2. The Backstop Provisions for Stormwater Should not Be Prescriptive

Table 8-6 of the TMDL indicates that the backstop provision for stormwater will be "MS4: 50% of urban MS4 lands meet aggressive performance standard through retrofit/ redevelopment." This is somewhat self-contradictory as it first asserts that a performance standard will be applied but then stipulates specific practices. In essence this is a practice-based requirement. On the surface, this would restrict flexibility for the MS4 by precluding any measures other than retrofits, such as the purchase of nutrient credits on the trading market. This would unnecessarily increase costs and again, raise the affordability issue.

WRI recommends that the backstop provision be revised to set performance standards and provide MSs as much flexibility as possible on how to meet the standards.

3. Some Backstop Measures Could Make Things Worse

The main backstop measure that EPA has at its disposal is the lowering of wasteload allocations for wastewater treatment plants. The maximum application of this measure would be to reduce the annual load limit and treatment requirement to a load based on existing flow and the limit of technology for nutrient removal; in other words, capping the plant at existing loads treated to the maximum extent possible. This would mean that no further growth could be allowed in the plant's service area because the plant could not meet its permit limits if such growth were to occur. The only way to avoid this would be to ensure the existence of a viable nutrient trading program with an adequate supply of credits.

If such a trading program did not exist or credit supplies were inadequate, then the plant would have to impose a moratorium on new connections in its service area. While EPA may feel that this is an acceptable outcome for states that do not provide reasonable assurance for nonpoint source reductions, it should carefully consider the potential unintended consequence of driving new development to unsewered areas to be served by septic systems. The nitrogen load from a house on septic, even with a denitrifying septic system, would be substantially higher than if the house were connected to a municipal system treating wastewater to the limit of technology. Maryland's WIP states that "per household, the (nitrogen) load from new development on well and septic is almost five times as great as new loads from sewer areas." . Imposing sewer moratoria and driving development to currently undeveloped and unsewered areas could also endanger smart growth and encourage sprawl with its myriad adverse environmental and social impacts.

EPA should reevaluate this backstop provision in a more holistic manner and ascertain if in fact it would produce a net benefit. If not, lowering wasteload allocations should be dropped as a backstop measure.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to comment 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0530.1.001.002

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

PBA is proud of the contributions that its members have made-often working collaboratively with representatives of state and municipal governments, sewage treatment plants, agricultural interests, environmental organizations, and other business groups-in developing Pennsylvania's response to the challenges posed by the Chesapeake Bay TMDL. In Pennsylvania, these diverse constituencies, which in the past had often worked in opposition to each other on Bay-related issues, have in recent years found myriad areas of agreement and have come together to find common solutions where possible. As a result, much faster and more substantial progress has been made on a voluntary, collective basis than had previously been achieved on an adversarial one.

PBA is very concerned, however, that the progress Pennsylvania has achieved will be undermined-and possibly reversed in some cases-by EPA's threatened "backstop allocations." The approach represented by the "backstop" strategy is precisely the opposite of that which has begun to work so well in Pennsylvania. It pits one sector (sewage treatment plants) against others (urban-suburban stormwater and agriculture) in the hope that the treatment plants will advocate for stricter measures against the other sectors (and therefore avert the "backstop" allocation that they face), rather than encouraging the sectors to continue to collaborate in the service of their own interests and by so doing advance the cause of protecting the Bay. The more likely result under the "backstop" scenarios (including forcing sewage treatment plants to treat to the limit of technology, retrofitting existing urban areas, regulating more small farms as concentrated animal feeding operations, further tightening stormwater controls for new development, and imposing a higher "baseline" for trading and offsetting initiatives by non-point sources) will be that scarce public and private resources will be directed to relatively more costly, less efficient pollution reduction methods-an outcome that runs counter to that desired.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0531.1.001.008

Author Name: Abraham Phillip

Organization: Virginia Association for Commercial Real Estate (VACRE)

VACRE urges EPA to delay adoption of the TMDL and any decision to impose backstops on the states for at least one year and until no sooner than December 31, 2011. We ask for this for the following four reasons:

Finally, no legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and

achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient exchange program and/or nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0532-cp.001.001

Author Name: Cole P.

Organization:

As a member of the Chesapeake Bay Blue Ribbon Finance Panel, I am quite dismayed the direction being taken by the EPA in regards to the proposed nitrogen/phosphorus requirements. Millions and millions of dollars have been spent on committees, publications, and expenses with little or no positive outcome. Time and time again it has been pointed out that improper modeling was used to reach the proposed limits; with no funding mechanisms in place to assist individuals or city/county governments to meet these requirements. At last count, WV alone needs 2 billion dollars for water/wastewater projects throughout the State. Targeting one area is not a viable option for any State Legislature. It appears the only option left is for the States to file a collective suit against these proposals and use valuable resources to stop this madness. For a federal agency to state time and again they don't care how we reach these limits, get it done or we will impose backstops to make sure you do is not cooperation, it is tyranny and needs to be addressed.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the

WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all stakeholders involved including federal agencies and state and local jurisdictions. EPA encourages all stakeholders to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its stakeholders and jurisdictional partners in order to achieve this.

Comment ID 0534.1.001.004

Author Name: Golazeski Daria

Organization: Broome-Tioga Stormwater Coalition (BTSC)

Since the BTSC's inception we have worked closely with the NYSDEC and we are confident that New York State has put forth a concerted effort to devise a draft Watershed Implementation Plan that sets forth goals to achieve realistic and attainable results. Yet, these efforts still have fallen short of the EPA's desired reductions. Due to the already low pollutant levels in New York these required reductions cannot be met, and therefore, the extreme expense associated with the mandates will be fruitless. Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in New York, by the NYSDEC, the BTSC and other groups committed to water quality improvement, should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

Response

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0536.1.001.003

Author Name: Belin Hedrick

Organization: Potomac Conservancy

EPA's 'backstop' requirements must be crafted to motivate States to better control nonpoint source pollution, especially urban stormwater runoff.

Response

Thank you for the comment. For more information please refer to the response for comment 0246.1.001.004.

Comment ID 0546.1.001.002

Author Name: Cameron Beverly

Organization: City of Fredericksburg, Virginia

EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0546.1.001.006

Author Name: Cameron Beverly

Organization: City of Fredericksburg, Virginia

As an organization with a demonstrable commitment to water quality, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and the Virginia WIP through the Draft TMDL and its elements that relate to our WLAs and the proposed non point source load allocations.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0551-cp.001.003

Author Name: Horton William

Organization: Hurt & Poffitt, Inc.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December

31, 2011 for the following reasons:

No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious pavement. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0555.1.001.004

Author Name: Shadowen H.

Organization: Brandywine Realty Trust

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0586.1.001.005

Author Name: Fischer Micaela

Organization: The Pew Environment Group

EPA's proposal for regulatory "backstops" for CAFOs, which emphasizes releases from production areas rather than manured cropland, likewise falls short of what could be done to dramatically reduce pollutant releases associated with livestock agriculture.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0590.1.001.005

Author Name: Chavez Jennifer

Organization: Earthjustice et al.

4. EPA Backstop Allocations: EPA says that its backstop measures are federal actions that the agency "is prepared to take" if jurisdictions do not meet milestones on schedule. EPA must go further and make clear that it will take the backstop actions, along with any additional actions needed to assure compliance with a milestone, within 60 days of any milestone missed by the state. Failure to so commit would be inconsistent with 33 U.S.C. 1313(d)(2).

Response

EPA disagrees with commenter's characterization of the CWA requirements. For more information please refer to the response for

comment 0246.1.001.004.

Comment ID 0598-cp.001.004

Author Name: Jones George

Organization: Foxglade Farm

States should not be forced to take drastic measures to avoid being subject to the "backstops" but be allowed to develop programs that suit the state. a

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0604.1.001.002

Author Name: Missimer Carroll

Organization: P. H. Glatfelter Company

Non-point Sources of Nutrients are the Correct Focus of the State Watershed Implementation Plans and EPA's TMDL

The high quality effluent from the Spring Grove mill is typical of the effluents from the overwhelming majority of industrial and municipal point source dischargers in the Chesapeake Bay watershed. Over the past forty years, US EPA and their state environmental agency counterparts have worked in harmony through the effluent guidelines and NPDES permitting processes to continuously improve the waste treatment processes at industrial and municipal waste water treatment plants. This has resulted in the high quality effluents that are now discharged into the nation's receiving waters.

Accordingly, it is no surprise that most of the excess nutrients causing eutrophication in the nations waterways including the Chesapeake Bay are coming from non-point sources, not point sources. The watershed implementation plans (WIPs) submitted by the states and the District of Columbia acknowledge this fact and correctly focus most of their nutrient and sediment reduction efforts on non-point sources. While some of the state WIPs could be more comprehensive, US EPA's backstop TMDL measures to force point source dischargers to make additional reductions to their nutrient and sediment discharges are not realistic nor technological possible in most cases. Instead of threatening to force or actually forcing those dischargers that have already made significant and costly improvements to reduce nutrient and sediment discharges, US EPA should continue to work cooperatively with their state and federal partners to assist non-point source dischargers to make significant and cost effective reductions in nutrient and sediment discharges.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0605.2.001.003

Author Name: Payne L.

Organization: City of Lynchburg, Virginia

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations, and we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0606.1.001.005

Author Name: Schmidt-Perkins Dru

Organization: 1000 Friends of Maryland

EPA Has Properly Included "Backstop Allocations" in its TMDL

In its TMDL document EPA describes, thoroughly and accurately, the lengthy history leading to its development of the draft TMDL, including the legal framework (Sections 1 - 3), much of which has been summarized above. In Section 8 it describes the development by the states of their Watershed Implementation Plans, EPA's evaluation of them, and the use by EPA of "backstop" allocations which EPA developed, based on its exhaustive modeling and data-gathering efforts, to ensure that, where the WIPs fail to demonstrate eventual achievement of the loading caps, the "backstop" allocations will do so.

Over the course of more than two decades EPA has worked closely with the states within the Chesapeake Bay watershed to develop effective strategies to restore the water quality of the Bay and to achieve compliance with water quality standards. The framework which allows each state to develop a WIP, in which the state may establish

allocations for sources within its boundaries which will achieve water quality standards for each segment before EPA applies backstop allocations (which are applied only if needed), is part of that joint effort. In its WIP each state must also provide assurance that it has and will use the authority and resources necessary to ensure that its allocations will be fully implemented so as to achieve eventual compliance with water quality standards.

As discussed above, EPA has the legal authority to establish the TMDLs on its own under Sections 303(d) and 117(g) of the Clean Water Act. However, allowing the states the "first shot" at prescribing effective loading allocations for sources within their jurisdictions lets them determine which combination of point source and nonpoint source controls will provide, from their perspective, the most cost-effective or preferable approach to achieve water quality goals, provided each segment's overall loading cap is satisfied. To the extent that a WIP does not provide a combination of load and wasteload allocations to sources and categories of sources which is sufficient to satisfy the TMDL requirements which EPA provided to the states during the summer of 2010, based on its modeling results, for any segment within its jurisdiction, EPA's "backstop" allocations were applied so as to reasonably assure compliance, as EPA is required to do under Clean Water Act Sections 303(d) and 117(g). Given the serious deficiencies in most of the draft Phase 1 WIPs it was necessary for EPA to make substantial use of the backstops.

The result of this approach is that EPA is holding itself ultimately accountable for ensuring that the resulting allocations meet the requirements of Section 303(d) while allowing the states to propose allocations of their own through their WIPs. For the reasons described above, this strategy, and EPA's implementation of it, are fully supported by the Clean Water Act.

Response

Thank you for the supportive comment. Please refer to the response for comment 0246.1.001.004.

Comment ID 0607.1.001.005

Author Name: Bauhan Hobey

Organization: Virginia Poultry Federation (VPF)

Aside from EPA's failure to follow the Clean Water Act with respect to development of a Chesapeake Bay TMDL, the agency's policy of threatening TMDL "backstops" against federally permitted point sources for perceived WIP deficiencies is also counterproductive and poor public policy. The proposed backstops call for greater nutrient reductions at municipal wastewater treatment facilities and greater regulation of animal feeding operations (AFO's), this despite limited authority to require NPDES permits for AFOs and the fact that both wastewater plants and poultry AFO's in Virginia have already complied with stringent regulatory requirements at considerable expense.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs

and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Comment ID 0608.1.001.002

Author Name: Pallansch Karen

Organization: Virginia Sanitation Authority, City of Alexandria

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations"). EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). Implementation of "full backstop" allocations at 2007-2009 average flows would require significant upgrades to our facility with construction costs exceeding \$280 million. This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is a nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0609.1.001.005

Author Name: Aubertine Darrel

Organization: Senate of the State of New York

It is also troubling that the EPA has developed "backstop" allocations that will be forced upon the States at great cost.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0229.1.001.005. Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay. Additionally, EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Comment ID 0610.1.001.001

Author Name: Randall Clifford

Organization: Occoquan Watershed Monitoring Program (OWMP)

Our comments relate specifically to the issue of nitrogen management at the Upper Occoquan Service Authority (UOSA) Water Reclamation Facility (WRF) located in Centreville, Virginia and discharging to the Occoquan Watershed.

Standing for Commentary

The Occoquan Watershed Monitoring Subcommittee (OWMS), and the Occoquan Watershed Monitoring Program (OWMP), are charged under the provisions of the Occoquan Policy (VR 680-11-05) with maintaining a continuous record of water quality in the Occoquan Watershed and Reservoir, and reporting to DEQ any changes in water quality due to either point source discharges or nonpoint sources. The purpose of the Occoquan Policy is to ensure the preservation of the Occoquan Reservoir as a reliable drinking water supply for the Fairfax County Water Authority (now Fairfax Water), which currently serves a population of over 1.5 million in the Northern Virginia region. We are, respectively, the Chairman of the OWMS, and the Director of the OWMP, capacities in which we have served since 1972 and 1975, respectively. From this perspective, we have reviewed the Draft TMDL document with a view to determining if there are any issues with respect to maintaining acceptable raw water quality in the Occoquan Reservoir drinking water supply. While not directly within the field of responsibility of the OWMP, we have also reviewed the draft with respect to likely impacts on nutrient loads delivered to the Potomac Estuary (and thence to the Chesapeake Bay) from the Occoquan Watershed.

In careers totaling over eight decades in Virginia, we have both worked (and continue to work) on issues fundamentally related to restoration of the Bay. Professor Randall was appointed to the inaugural Scientific and Technical Advisory Committee (STAC) of the Chesapeake Bay Program by the Governor of Virginia in 1984, for service beginning in 1985, and served on STAC for 21 consecutive years, including four years as the first Committee-elected chair. He has also conducted fundamental research and extensive implementation of biological processes for the removal of nutrients from

wastewater, and the fruits of his efforts may be seen throughout the Bay Watershed. Professor Grizzard has also served as a member of STAC, and has conducted basic research on the transport of nutrients in stormwater, and on the interactions of nutrients between the water column and sediments of impounded waters, efforts of obvious concern for the Occoquan Program, as well as the Bay restoration efforts.

With our respective responsibilities and professional backgrounds, we are writing to voice an urgent concern relative to the application of the backstop provision (as described in Chapter 8 of the TMDL draft) for the total nitrogen load allocation to the UOSA WRF.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0610.1.001.004

Author Name: Randall Clifford

Organization: Occoquan Watershed Monitoring Program (OWMP)

The assumption that applying the backstop nitrogen removal requirement to the UOSA WRF discharge will result in a 1:1 reduction in nitrogen delivery to the Chesapeake Bay is fundamentally flawed. In fact, imposing the limit may have the unintended consequence of actually increasing the phosphorus and nitrogen loads exiting the Occoquan Reservoir, and at the same time further degrading water quality in a critically needed drinking water supply. The previously-cited 2005 report from OWML (An Assessment of the Water Quality Impacts of Nitrate in Reclaimed Water Delivered to the Occoquan Reservoir) reached similar conclusions.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0610.1.001.005

Author Name: Randall Clifford

Organization: Occoquan Watershed Monitoring Program (OWMP)

Upon its review of that document, the Occoquan Watershed Monitoring Subcommittee unanimously accepted the report recommendations, and directed the chairman to communicate those findings to the Virginia DEQ. That letter (previously cited as Attachment A) [Comment Letter contains additional information in the form of an attachment. See original

comment letter 0610.1] contained the following recommendation:

"...it is the conclusion of the OWMS that implementation of the proposed [technology-based] nitrogen reductions for UOSA would be detrimental to water quality in the Occoquan Reservoir, and would needlessly threaten the public health of the more than 1.2 million FW [Fairfax Water] customers who rely on the Reservoir for drinking water. Therefore, the OWMS, by unanimous vote, recommends that the new nitrogen reduction requirements not be imposed on the UOSA WRF at this time, and that the current nitrogen management strategy of the Occoquan Policy remain in force pending the completion of needed research by OWML."

We should point out at this time, that the above-referenced recommendations of the OWMS were that no reductions in nitrate in the UOSA discharge would be undertaken unless necessitated by the requirement to maintain a raw water intake concentration of no more than 5 mg/L as N. In 2007, and contrary to recommendations of the OWML assessment and the OWMS, the Virginia DEQ imposed the current annual total N load cap of approximately 1.3 million pounds.

Even though this decision was taken 3 years ago, we have continued to think it was an unwise approach to managing the system, and the current backstop nitrogen removal proposal has certainly elevated our level of concern about unintended consequences. Our concerns were specifically highlighted in our letter to Virginia DEQ on 25 May, 2007 (Attachment C) regarding the 1.3 million pound permit limit. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0610.1] Professor Grizzard continued to voice our misgivings about consideration of further lowering the UOSA load allocation in an opinion delivered to UOSA in a letter dated 14 September, 2009 (Attachment D). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0610.1]

Now, as then, we strongly caution against the application of new nitrogen load reductions to the UOSA WRF, particularly at this point in time. The risks of undesirable outcomes with respect to local water quality are simply too great, as are the risks of not achieving the anticipated results for the Chesapeake Bay. A far more rational approach to nitrogen management in the Occoquan Watershed would be to continue to build on the base of the water quality studies and modeling work currently underway so that further refinements in a management strategy may be developed in a way that carries a lower risk of triggering unacceptable water quality outcomes.

We are appreciative of the opportunity to voice our opposition to the current backstop proposal, and we hope that a careful review of our concerns will be conducted. Because of the foresight of regulatory agencies in the Commonwealth of Virginia and other watershed stakeholders, extending back over four decades, we are in a unique position to make careful and supportable management decisions in the Occoquan Watershed. In our judgment, it would be unwise to proceed with new decisions that are not similarly well-grounded on the scientific understanding that has been developed in this critical Northern Virginia water resource.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0614.1.001.003

Author Name: Street William

Organization: James River Association (JRA)

JRA much prefers the development and implementation of a sufficient Virginia Watershed Implementation Plan (WIP) as the guide for efforts to achieve water quality standards for the James River that would obviate the need for any EPA backstop actions. However, in the event that the state fails to fulfill its own legal duties and obligations to address water pollution and impairments in the James River, JRA supports EPA enactment of backstop actions to provide reasonable assurance that necessary pollution reductions will be achieved.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0624-cp.001.004

Author Name: Bushey J.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0626-cp.001.005

Author Name: Stone Melanie

Organization: Holladay Properties, Inc.

No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0629-cp.001.001

Author Name: Reese Jodi

Organization: CET Engineering Services

Why were the caploads of the Pennsylvania significant industries reduced so dramatically? From the attached table [Comment Letter contains additional information in the form of an attachment. See original comment letter 0629.1.001.001], the PA WIP allocated 1,820,139 pounds per year of Total Nitrogen. The EPA draft TMDL Backstop allocates 413,449 pounds per year. The PA WIP allocated 64,683 pounds per year of Total Phosphorus. The EPA draft TMDL Backstop allocates 4,181 pounds per year.

How were the Pennsylvania cap loads for the individual industries calculated? The attached table [Comment Letter

contains additional information in the form of an attachment. See original comment letter 0629.1.001.001] compares Pennsylvania significant cap loads from the PA WIP versus the EPA TMDL Backstop. As an example, some industries got merely 1% of the PA WIP Total Nitrogen capload and some were allocated 49%. Several of the insignificant industrial point sources were given caploads of zero (0) pounds per year of total phosphorus.

Why are the Pennsylvania industrial caploads significantly lower than municipal cap loads? In the EPA draft TMDL Backstop, municipal point source capload allocations were based on 3 mg/l of TN and 0.1 mg/L of TP and insignificant municipal point sources on 8 mg/L of TN and 2 mg/L of TP at design flow conditions. As the attached table [Comment Letter contains additional information in the form of an attachment. See original comment letter 0629.1.001.001] shows, the industrial caploads are significantly lower.

Why were many industrial facilities given limits less than the limit of treatment technology at design flow conditions? The caploads cannot be achieved when the industry must treat the wastewater to reduce the concentrations of TN or TP in the discharge. This condition forces every industrial facility, as it approaches design conditions, to purchase nutrient credits, if they can.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0648-cp.001.001

Author Name: Brath P.

Organization:

As a resident of Pennsylvania, a municipal consultant, a boater and fisherman and a concerned citizen, I have followed and been involved in the Chesapeake Bay Tributary Strategy implementation and now the DEP's Watershed Implementation Plan. The Environmental Protection Agency's draft Backstop Chesapeake Bay TMDL is a disappointing action that must be reconsidered. I have included comments to the EPA's plan below.

Comment #1:

High-level Backstop allocations with additional loadings allocated to Point Sources (the Wastewater Treatment Plants), bluntly, is a very poor use of the people's money. The EPA should and must consider the impertinence of this "limit of technology" action and must revise its allocations.

In considering the limits of technology, the EPA should consider its 2009 "Nutrient Control Design Manual State of Technology Review Report" and the typical treatment plants ability to meet these total maximum daily limits on a

continuous basis. The ability for all point source/wastewater plants in the watershed to meet these particular limits on a daily basis is questionable. The level of treatment by a point source is typically better than the permit requirements in order to ensure some time to adjust to the inconsistent wastewater flows and concentrations. That, by EPA definition means that the point sources must treat to greater than the limits of technology to meet the limit of technology allocation set by the EPA.

In considering this reallocation of the load, the EPA must consider that the point sources have actively participated in the load allocation process and have consistently been willing to do an appropriate share of the load reduction. To that purpose, the point sources developed a clear strategy with the DEP, with the EPA's full knowledge and participation, and are well on their way to achieving compliance with the expected load reduction and can be expected to significantly overachieve the reduction for the next five to ten years.

Comment #2:

The notion put forward by the EPA that Pennsylvania has done little to improve water quality in the Chesapeake Bay watershed is false and misleading.

Over the past 5 years, Pennsylvania, through the DEP and local efforts, has enhanced enforcement of, and has been updating, its rules, standards, and regulations. The DEP's State Water Plan of 2008 is intended to "integrate and leverage existing state and federal stormwater management regulations, policies, and requirements" through "appropriate legislation, regulation, and administrative changes." The concept is to provide "an effective, straightforward, seamless stormwater management program that is blind to regulatory origin." Pennsylvania has been and is continuing to thoughtfully fulfill its obligation to be good stewards of our natural assets. Though progress may not be as rapid as hoped for by many, and expected by national regulators, the progress has been steady. We as a State believe it is about to rapidly turn a corner towards greater coordinated compliance and better water quality through new regulatory efforts and better cooperative programs.

Some of the programs and regulations already moving the State toward cleaner water include the Stormwater Management Act 167; Sewage Facilities Act 537; Municipalities Planning Code, Chapters 102 and 105; NPDES MS4; and, through EPA and DEP, established local total maximum daily loads (TMDLs). Some of the current programs that have been undergoing comprehensive reviews and significant changes include:

- Title 25, Article II, Chapter 92a National Pollutant Discharge Elimination System (NPDES) program updates, including municipal separate storm sewer system (MS4)
- Title 25, Article II, Chapter 96 Water Quality Standards Implementation requiring TMDL development for various water courses in the state
- Title 25, Article II, Chapter 102 Erosion and Sediment Control, and Stormwater Management program updates (includes Best Management Practices, BMPs)

In order to "bring people into compliance," the DEP, has several established regulations that are slated for increased enforcement and greater use, including:

- Nutrient Trading Program through Pennsylvania Infrastructure Investment Authority (PENNVEST) and independent brokers
- Title 25, Article II, Chapter 105, Dam Safety and Waterway Management

- Title 25, Article II, Chapter 93, Water Quality Standards
- Act 167, Pennsylvania's Stormwater Management Act
- Act 38, Pennsylvania's Nutrient Management Act

To facilitate municipal compliance with the new rules and regulations, the state legislature is responding to concerns over legal aspects of funding and control of stormwater facilities and MS4 watershed programs by putting forward legislation for development for stormwater authorities (HB 1390).

The DEP has added language to the Pennsylvania Chapter 92a standards that incorporates the "latest" EPA MS4 regulations. This will ensure that Pennsylvania's rules and regulations will automatically incorporate the new EPA regulations when they are updated and keep Pennsylvania in compliance with federal rules.

There are many local efforts that have been implemented, including various county plans for consolidated nutrient trading to more functionally guide the non-point source community. These include the existing watershed groups that work to enhance the conditions of the watersheds and educate the surrounding communities. Also included are the groups like the Lancaster County Clean Water Consortium that have been gathering resources and leading local, ground up efforts to clean up the rivers and streams.

All these things take time. The Bay did not become as it is in a few years. The legal framework and the education of the public to properly work towards the restoration of the watersheds leading to the Bay may not happen in an amenable a time frame for the EPA. The EPA should and must work with Pennsylvania to assist the State in achieving these goals. The Backstop TMDL's are not an appropriate means of working with the people of Pennsylvania..

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0648-cp.001.004

Author Name: Brath P.

Organization:

As a resident of Pennsylvania, a municipal consultant, a boater and fisherman and a concerned citizen, I have followed and been involved in the Chesapeake Bay Tributary Strategy implementation and now the DEP's Watershed Implementation Plan. The Environmental Protection Agency's draft Backstop Chesapeake Bay TMDL is a disappointing action that must be reconsidered. I have included comments to the EPA's plan below.

Conclusion: I hope that the "Backstop" has been an effort to direct attention to the Bay's watersheds and focus attention

on specific goals and necessary improvements to clean up the Chesapeake Bay. Pennsylvania's WIP should be accepted and the fine details should be worked out this next year in the revised WIP. The EPA should focus on achieving fair and equitable solutions and seize on this opportunity to engage local, state and federal stakeholders in achieving the goals to protect this natural resource.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0657.1.001.001

Author Name: Murphy Robert

Organization: Town of Colonial Beach, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations"). EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0667.001.004

Author Name: Comment Anonymous

Organization:

Due to long-term devastating economics conditions for agriculture, federal back-stops alone will be enough to drive farmers out of business. Individual businesses, farmers, and the State cannot meet this unfunded mandate from EPA without significant federal funding.

Instead of forcing states to regulate their way out of back-stops, we urge EPA to allow Virginia to implement its own

plans for achieving clean water goals without costly, burdensome regulations.

Response

Please refer to the response for comment 0229.1.001.005. The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002. Please also refer to the response to comment 0139.1.001.006 which discusses the issue of economic impacts to individual farmers.

Comment ID 0675-cp.001.005

Author Name: Orlando Robert

Organization: PR Patrick Henry LLC

No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Thank you for the comment. For a comprehensive discussion of legal issues see EPA Essay Response to Legal Issues provided in response to comment number 0293.1.001.014.

Comment ID 0677-cp.001.001

Author Name: Comment Anonymous

Organization:

Why were the caploads of the Pennsylvania significant industries reduced so dramatically? From the attached table, the PA WIP allocated 1,820,139 pounds per year of Total Nitrogen. The EPA draft TMDL Backstop allocates 413,449 pounds per year. The PA WIP allocated 64,683 pounds per year of Total Phosphorus. The EPA draft TMDL Backstop allocates 4,181 pounds per year.

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industrial point sources were given caploads of zero (0) pounds per year of total phosphorus.

Why are the Pennsylvania industrial caploads significantly lower than municipal cap loads? In the EPA draft TMDL Backstop, municipal point source capload allocations were based on 3 mg/l of TN and 0.1 mg/L of TP and insignificant municipal point sources on 8 mg/L of TN and 2 mg/L of TP at design flow conditions. As the attached table shows, the industrial caploads are significantly lower.

Why were many industrial facilities given limits less than the limit of treatment technology at design flow conditions? The caploads cannot be achieved when the industry must treat the wastewater to reduce the concentrations of TN or TP in the discharge. This condition forces every industrial facility, as it approaches design conditions, to purchase nutrient credits, if they can.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0681.1.001.003

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

CAFO/AFO

On page 8-15 and 8-16 of the draft TMDL, "moderate" level backstop allocations are described for Animal Feeding Operations (AFOs) and Concentrated Animal Feeding Operations (CAFOs) in Virginia. The "full treatment train" for AFO production areas is described on page 8-15 as containing waste management, barnyard runoff control, and mortality composting. Virginia agrees that in order to protect water quality, AFOs must implement practices that address management of animal waste produced, control of runoff, and mortality management. These three components can be addressed using a wide array of best management practices (BMPs). The terms "waste management" and "barnyard runoff control" are sufficiently broad to accommodate the varied site-specific practices that could be used; however, limiting mortality management to composting is overly restrictive. Other options such as rendering, landfilling, and

incineration are also viable options that would produce an equivalent pollutant reduction.

Recommendation: Replace "mortality composting" with "mortality management."

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0681.1.001.005

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

The EPA backstop applies across-the-board allocations for significant municipal wastewater plants based on TN = 4 mg/l. This approach to setting wastewater allocations has particular adverse impacts involving three dischargers in the James River basin:

Hopewell Regional - influent is 80% industrial waste; due to unique wastewater characteristics of industrial facilities, a 5 mg/l concentration of nitrogen for a municipal treatment plant is equivalent to 12 mg/l for Hopewell, and 3 mg/l for municipal treatment plant is equivalent to 8 mg/l for Hopewell.

Recommendation for Hopewell Allocation: Base the TMDL WLA on 10 mg/l [which is equivalent to 4 mg/l at a POTW]; results in a WLA of 1,522,780 lbs/yr., which is a 913,668 lbs/yr increase over the EPA backstop.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0683-cp.001.004

Author Name: Massey R.

Organization: Ross, France & Ratliff, Ltd.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0688.001.001

Author Name: Comment Anonymous

Organization:

1. Why would EPA propose significant WTPs in

West Virginia, Delaware, New York, and Pennsylvania discharge at

	If Applied to Virginia - Reduces Loads by
TN =3.00 mg/l	8.30 million pounds
TP = 0.10 mg/l	1.14 million pounds

And then propose Virginia and Maryland at

	If Applied to Virginia - Reduces Loads by
TN =4.00 mg/l	5.70 million pounds
TP = 0.30 mg/l	0.54 million pounds

When:

Organization: National Association of Clean Water Agencies (NACWA)

Publicly owned treatment works (POTWs), most of which have already made significant strides in reducing their contribution of nutrients, and MS4 utilities will be most directly affected by the proposed TMDL. At its foundation, EPA's approach to the Bay promises a more holistic program capable of looking across the watershed to address the variety of sources impacting the bay. However, effective TMDLs require fair and cost-effective allocations to all sources and must not over-burden municipal dischargers simply because the authority to address the other sources is lacking. However, achievement of the load reductions in EPA's proposed TMDL falls squarely, and inequitably, on the backs of the POTWs and MS4s in the Bay watershed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0694.001.001

Author Name: Comment Anonymous

Organization:

1. Question: USEPA is proposing placing a 5 mg/L. Total Solids concentration (annual average wasteload) on POTWs in Virginia. Solids from soil erosion sources are generally 80-95 percent inert and exhibit a charge exchange relationship, which permit phosphorus attachment to these inert particular matter. On the other hand, Total Suspended Solids from POTWs are generally 60-80 percent volatile in nature and are derived generally from treatment bacteria cellular degraded mass, which exhibit no charge relationship with phosphorus. These volatile solids further biologically degrade upon entering the aquatic environment with little on no impact on water column light transmission, or an ultimate impact on SAV. Why is USEPA concerned with further controlling Total Suspended Solids from POTWs?

2. Question: USEPA is proposing placing a 4 mg/L. Total Nitrogen (annual average wasteload) on POTW's in the James Watershed. We operate a POTWs in the James above the fall-line (non-tidal fresh) and our Nutrient General Permit allows for 6 mg/L. TN and 0.5 mg/L.TP on an annual average. Based on our facility being an E3 facility, our Environmental Management System goals, our WQIF Grant and our strong desire to protect our aquatic environment, we decided to pursue a basis of design of 5 mg/L. TN and 0.3 mg/L. TP. We are presently two years into a four-year construction schedule on a 45 million ENR upgrade.

VAMWA research is showing little is gained in Chlorophyll response to the additional investment in infrastructure and additional O&M chemical feed costs. Why would USEPA propose major design and construction changes before we

have placed into service our new ENR process? If the USEPA's backstop proposal holds, will the federal government provide 100% funding construction grants for this potential regulatory required construction?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Please refer to the response for comment 0299.1.001.006 for additional information on sediment allocations to WWTPs.

Comment ID 0709.001.006

Author Name: Schneider Richard

Organization: Southern States Cooperative, Inc.

No to Federal Backstops

Virginia's Watershed Implementation Plan (WIP) reflects some practices for both agriculture and turfgrass that we strongly believe, given proper implementation and funding, will result in significant water quality improvements.

--Agricultural Resource Management or Conservation Plans to meet the individual conservation needs of each farm will result in progress without mandating a "one-size-fits-all approach".

--We support working with the turfgrass/green industry to make progress through utilizing nutrient management plans, amending the content of certain fertilizer products, and educating homeowners, while carefully balancing the costs and unintended consequences of under-managed or under-fertilized turfgrass.

EPA does not need to substitute its version of heavy-handed, government regulation if the state chooses to build off of the incentive-based practices and programs that have resulted in progress over the decades.

EPA's "backstop" measures put in the TMDL will certainly result in more costs for permitted facilities, such as large animal feeding operations, processing facilities, and urban landscapes.

We question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirements are both unclear.

Instead of forcing states to regulate their way out of "backstops," we urge EPA to allow Virginia to implement its own plans for achieving clean water goals-without costly, burdensome regulations.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0726.001.002

Author Name: Belfield G.

Organization: Town of Tappahannock, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations") . EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0727.001.006

Author Name: Thigpen Janet

Organization: Steuben County Environmental Management Council

In light of the unreasonable allocations assigned to New York, it is not surprising that EPA found shortfalls in the load reductions that are proposed in the state's draft Watershed Implementation Plan (WIP). EPA's proposed solution is to exert severe federal regulatory control over regulated sources in New York. These "backstop" measures would impose severe economic hardships on wastewater treatment plants, animal feeding operations, and municipal separate storm sewer systems (MS4s). However, it is unlikely that these punitive measures could achieve the desired pollution reduction results.

The proposed federal backstop actions do not constitute a credible strategy for achieving water quality standards in the Bay and should thus be eliminated. EPA should instead engage in constructive dialog with the states to develop realistic, economically viable water quality improvement strategies.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0735.001.001

Author Name: Smiley Don

Organization: Utilities, Inc.

We own and operate a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to two state-issued Virginia Pollutant Discharge Elimination System ("VPDES") permits.

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient waste load allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations"). EPA also threatens to cut WWTP allocations further to so-called "full backstop" levels, which would decrease the concentration basis further (3

mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0742.001.003

Author Name: Wells John

Organization: Town of Leesburg, Virginia

Each year the Town must prioritize the level of maintenance required and permissible with the amount of local funding provided. As the Town's size increases and resources are spread thinner, this becomes more and more of a challenge. In order for the Town to implement the proposed EPA backstops for WLA of the proposed pollutants there must be flexibility for the Town to comply. Retrofitting in the Old and Historic District as well as many parts of the Town will be challenging due to the geographic, geologic, geotechnical, topographical, and historical nature of the Town's historic character.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0742.001.005

Author Name: Wells John

Organization: Town of Leesburg, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs and urban MS4 permits. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720,

and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations") . EPA also threatens to further cut WWTP allocations to so-called "full backstop" levels, which would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and possibly even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by the EPA that would do little to advance the Bay cleanup, which necessarily depends on major nonpoint source reductions because the Bay is nonpoint source dominated system with roughly 80 percent of the nutrient load attributable to nonpoint sources. While the Draft Virginia WIP lacks clarity on what the exact requirements would be for urban and suburban stormwater, EPA's Draft TMDL defines an aggressive "backstop" allocation . We find these backstop measures to be inequitable if not illegal.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0746.1.001.017

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

The Final TMDL Should Not Include any federal Backstops.

New York has one of the most advanced and well implemented CAFO control and other agricultural stormwater related water quality improvement program in the country. New York has announced that, in its final Phase I WIP, it will provide supplemental information to support the basis for its "reasonable assurance" that the WIP will achieve the Nt, Pt and Sediment reductions forecasted in the draft WIP. This WIP must be accepted and the State be given at least 4 years to demonstrate that it is on track to achieve its forecasted N, P and sediment reductions.

EPA should not be second guessing New York and the other Bay States with respect to the Non-Point Source reductions they believed can be "reasonably assured" to be achieved. New York has expressed its confidence that, if it is given fair allocations, the implementation plan included in its draft WIP will lead to even further significant reductions in New York's already low nutrient-related contributions to the Bay watershed. We understand that EPA and NYSDEC have come to a conceptual agreement that the State has established the requisite "reasonable assurance" that the Non-Point Source-related elements in its proposed WIP are realistic and achievable. Therefore, a decision to allow the final TMDL to be based on New York's proposed WIP is reasonable and supported by the evidence that will be submitted to EPA by NYSDEC. The draft New York WIP will still need to be modified to reflect such things as the fact that BATTLOT for biological treatment of high organic strength industrial food processing wastewater is higher than the 5 mg/L Nt and 0.5 mg/L Pt which NYSDEC has determined represents BAT/LOT for most municipal WWTPs within the Bay Watershed. After EPA has approved the final TMDL, the New York WIP must be used as an "Adaptive Management" document which can change as experience is gained (or if the New York Allocations are increased.)

New York has one of the most advanced and well implemented CAFO control and other agricultural stormwater related water quality improvement programs in the country. We understand that, in its final Phase I WIP, New York will be improving its documentation as to why "reasonable assurance" exists that the WIP will achieve the Nt, Pt and Sediment reductions forecasted in the draft WIP. This WIP must be accepted and then be given at least 4 years to see if the State is on track to achieve its forecasted N, P and sediment reductions.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Comment ID 0747.001.003

Author Name: Hankins Joseph

Organization: Jefferson County (West Virginia) Public Service District

The high "backstopping" provisions on point sources implemented by USEPA in response to West Virginia's WIP deficiencies are counter-productive and should be withdrawn. Requiring nutrient reductions to the limits of technology will add tens of millions of dollars to capital upgrade project costs and future operating expense in rural communities with minimal impact in incremental nutrient reduction. If the most aggressive mass loading reductions prove to be necessary in the future, barring a local WQS limit, point sources should be able to seek landscape or non-point offsets to meet the cap as the more cost effective and environmentally consistent approach to the problem. Requiring limit of technology treatment to reduce nutrients dramatically increases energy costs, may increase GHG footprints, and diverts community financial investment that might be more efficiently used in non-structural practices.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0763.001.003

Author Name: Child Laura

Organization: Otsego County, New York

the cost of these proposed 'back-stop' measures are to be borne by New York State, local municipalities and individual farmers; and

WHEREAS, the proposed 'back-stop' measures do not reflect the inherent difficulty in cleaning clean water, do not reflect an adequate understanding of trends in agriculture, demographics, land-use and climate in New York, call into question the equitable distribution of nutrient reductions across the watershed, threaten the economic well being of the agricultural industry and State and local municipal budgets and are not accompanied with any reasonable assurance of federal assistance equal to the estimated cost of implementation;

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0764.001.003

Author Name: Young Leroy

Organization: Pennsylvania Fish & Boat Commission (PFBC)

EPA has determined that Pennsylvania's WIP is deficient in proving that the draft pollution reduction plans adequately address the nutrient loading allocation limits. Because of these deficiencies, EPA has now imposed federal backstop measures into the draft TMDL that unfairly target point source discharges to meet the desired nutrient loading limits. These newly created loading limits assigned for our SFH's are not attainable. For example, DEP set a draft nitrogen load of 110,347 lbs/year at the Benner Spring SFH. EPA's draft TMDL requires a reduction of the nitrogen load at this hatchery by 63% to 40,866 lbs/year. For phosphorus, DEP provided us with a draft limit of 2,285 lbs/year which EPA now proposes to reduce by 88% to 284 lbs/year. If these proposed limits were made law, the PFBC would be forced to terminate our trout-rearing program within the Susquehanna River watershed.

Upon reading EPA's comments through the WIP critique, it is obvious that EPA believes that DEP has not provided sufficient information and acceptable planning to address non-point sources such as agriculture and stormwater runoff.

DEP has stated in previous meetings that 86% of Pennsylvania's nutrients that enter the Chesapeake Bay come from non-point sources. That means that only 14% of the Susquehanna River's nutrient loading can be addressed through management of point source loading management. Point source discharges, such as the PFBC hatcheries, are easy to identify and quantify; thus they have become targets of opportunity to reduce loading while the non-point sources, which are more difficult to quantify and control, are receiving much less scrutiny. The PFBC supports reducing nutrient loading; however, the magnitude of reduction in EPA's proposed backstop measures make it appear as though Pennsylvania's TMDL budget can be achieved from reducing the nutrient loading from 30 dischargers. We disagree with this approach.

The PFBC is greatly concerned with EPA's proposed backstop measures and we distribute recommend that EPA reconsider a more equitable approach to attain nutrient loading goals. We believe that EPA should continue to meet with DEP and the other Bay jurisdictions to work out a long-term plan that equitably nutrient management responsibility around the Chesapeake Bay Watershed. We favor an approach which sets limits at the current level of discharges so that nutrient loading is contained and then seeks to phase-in reductions over a stepped down process in time to meet the 2025 goals. Likewise, loading limits should be weighted so that both point and non-point contributors proportionately share in the burden of cleaning up the Bay. To do otherwise will unduly favor one industry or community over another. The low hanging fruit has always been the point source discharges. We strongly believe that it is past time to put the same effort into getting non-point discharges under control.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0766.001.001

Author Name: Schafer Christa

Organization: Delaware County Board of Supervisors

OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

WHEREAS, Delaware County supports the reasonable, cost effective and science-based protection of natural resources while protecting the economic integrity of the county; and

WHEREAS, Delaware County has demonstrated its commitment to protecting water quality by adopting (August 1999, Resolution No. 213) and implementing its Delaware County Action Plan county-wide; and

WHEREAS, even though Delaware County in partnership with other New York State counties have made significant improvements in water quality with regard to phosphorus, nitrogen, and sediment since the mid-1980's, it has been summarily dismissed by the Environmental Protection Agency (EPA) while other signatory states in the basin have increased their pollution footprint; and

WHEREAS, the New York State Department of Environmental Conservation (NYSDEC) provided reasonable and achievable thresholds for pollutant loading reductions from various sources for phosphorus, nitrogen and sediment through the Watershed Implementation Plan (WIP); and

WHEREAS, EPA has rejected the NYSDEC WIP as they believe it was significantly flawed

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

21.2 - HYBRID WIP BACKSTOP ALLOCATION

Comment ID 0067.1.001.004

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

GTP, along with other major industries in the Basin, has sought to work with the Pennsylvania DEP through the past decade in developing realistic, rational and workable approaches to allocating nutrient reduction targets and achieving those targets in an effort to meet the objectives of controlling Pennsylvania's loadings into the Chesapeake Bay.

Over the past decade, the GTP Facility has taken concerted actions, through process changes and other measures, to reduce nitrogen in our wastewaters - in the process earning the Governor's Award for Environmental Excellence in September 2002 recognizing our leading and voluntary efforts to reduce nitrate discharges by some 1 million pounds

per year. That same year, we earned a Business for the Bay award for outstanding achievement in nutrient reduction. We have clearly demonstrated our willingness to do our fair share in addressing the Bay's needs, long before regulatory mandates.

Further, as DEP and EPA are well aware, significant point sources (both POTWs and industries) have worked with DEP and other stakeholders over the past decade in working through the many issues that are inherent in arriving at a workable and fair watershed implementation plan. This process has not been easy, and sacrifices, investments, and burdens have had to be borne by all major point sources. The fundamental framework for the Pennsylvania WIP, as applicable to point sources, was worked out as part of Pennsylvania's Chesapeake Bay Tributary Strategy and the subsequent Chesapeake Bay Steering Committee. That framework set specific objectives for nitrogen and phosphorus loadings from major point sources, recognizing that in Pennsylvania all point sources taken together amount to just 12% of all nitrogen loads, 29.6% of all phosphorous loads, and a mere 0.6% of sediment loads generated in Pennsylvania that are delivered to the Bay. [FN1] Put another way, non-point source loads are and remain the vast majority of nutrient and sediment loadings to the Bay - and even if every sewage treatment plant and industry shut down, those non-point source loadings would remain a loading challenge to the Bay.

Thus, the Pennsylvania Chesapeake Bay Tributary Strategy, and the proposed Pennsylvania WIP that built upon that strategy as submitted to EPA in late September 2010, set specific loading targets for each significant sewage plant and industrial discharger (including the GTP Facility). For industries, DEP applied the Chesapeake Bay Industrial Wastewater Compliance Plan dated January 2010 (the "2010 Compliance Plan"), to allocate Total Nitrogen and Total Phosphorus loadings to all major industrial users. Applying the 2010 Compliance Plan, in early March 2010, DEP issued letters to each major industrial facility under 25 Pa. Code §92.8a, requiring the submission of plans and schedule to meet the proposed Nitrogen and Phosphorus cap loads. Those submissions were due in early September 2010, and we submitted such a plan and schedule.

Under the 2010 Compliance Plan, DEP has calculated certain nutrient cap loads for the GTP Facility, consisting of a Total Nitrogen Cap of 600,515 pounds per year and a Total Phosphorus Cap of 1,577 pounds per year. Our plan of action to meet those loading limits was submitted on August 26, 2010, and we are currently in the midst of implementing the action steps outlined in that plan.

[FN1] Percentages based on table entitled "Pennsylvania 2009 Nutrient and Sediment Loads Delivered to Chesapeake Bay EPA Phase 5.3 Watershed Model" in the Pennsylvania Chesapeake Watershed Implementation Plan (Sept. 2010) at pg. 13.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0089.1.001.006

Author Name: Hunter J. And M.

Organization:

No to Federal Backstops

Virginia's Watershed Implementation Plan (WIP) reflects some practices for both agriculture and turfgrass that we strongly believe, given proper implementation and funding, will result in significant water quality improvements.

--Agricultural Resource Management or Conservation Plans to meet the individual conservation needs of each farm will result in progress without mandating a "one-size-fits-all approach".

--We support working with the turfgrass/green industry to make progress through utilizing nutrient management plans, amending the content of certain fertilizer products, and educating homeowners, while carefully balancing the costs and unintended consequences of under-managed or under-fertilized turfgrass.

EPA does not need to substitute its version of heavy-handed, government regulation if the state chooses to build off of the incentive-based practices and programs that have resulted in progress over the decades.

EPA's "backstop" measures put in the TMDL will certainly result in more costs for permitted facilities, such as large animal feeding operations, processing facilities, and urban landscapes.

We question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirements are both unclear.

Instead of forcing states to regulate their way out of "backstops," we urge EPA to allow Virginia to implement its own plans for achieving clean water goals-without costly, burdensome regulations.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Please see the response to comment 0139.1.001.006 which discusses the issue of economic impacts to individual farmers.

Comment ID 0095-cp.001.001

Author Name: Polachek Ralph

Organization: Providence Farm, LLC

I am an urban cattle farmer and am committed to environmental stewardship. I always do my part to help create a healthy Chesapeake Bay and local waters. With and without funding, I have always implemented and maintained best practices especially regarding water issues. My pasture grass is maintained properly and serves as an excellent filter for stormwater runoff, can be a carbon sink, and captures sediment. I do and will continue to do all of this without federal or state funds - and without being "counted" by EPA. EPA does not need to substitute its version of heavy-handed, government regulation if the state chooses to build off of the incentive-based practices and programs that have resulted in progress over the decades. EPA's "backstop" measures put in the TMDL will certainly result in more costs for permitted facilities, such as large animal feeding operations, processing facilities, and urban landscapes. I question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirements are both unclear. Instead of forcing states to regulate their way out of "backstops," I urge EPA to allow Virginia to implement its own plans for achieving clean water goals-without costly, burdensome regulations.

Response

Thank you for your continued commitment to environmental stewardship in the Chesapeake Bay watershed. EPA understands your concerns regarding backstop allocations and refers you to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0201.1.001.006

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

Based upon the above discussion, PennDOT disagrees with the imposition of high level backstop allocation for PA point sources imposed on PADEP as a result of EPA's review of the PA WIP. See Draft Bay TMDL page 8-19. Specifically, PennDOT disagrees with the following back stop TMDL:

"MS4s: 50 percent of urban MS4 lands meet aggressive performance standard through retrofit/ redevelopment; 50 percent of unregulated land treated as regulated, so that 25 percent of unregulated land meets aggressive performance standard; designation as necessary."

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the

methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0263.1.001.004

Author Name: Foley Sharon

Organization: Harrisonburg-Rockingham Regional Sewer Authority (HRRSA)

As you may know, Virginia has achieved significant point source reductions in both Total Nitrogen and Total Phosphorus through its Watershed General Permit which requires compliance with stringent waste load allocations by December 31, 2010. In addition, the Watershed General Permit led to the formation of the Virginia Nutrient Credit Exchange Association, which provides for a comprehensive and accountable program to facilitate point-to-point nutrient trading among its participants of which HRRSA is a member. Accordingly, based on Virginia's proven track record in successfully developing and implementing these highly effective programs, HRRSA does not understand why EPA has so readily predicted failure of and summarily rejected the Virginia WIP on grounds of "inadequate reasonable assurance". Virginia should be given the opportunity to demonstrate that its WIP can meet the Bay TMDL two-year milestones without imposition of EPA's "backstop" actions.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0296.001.002

Author Name: Shank J.

Organization:

Instead of forcing states to regulate their way out of "backstops" we urge EPA to allow VA to implement its own plans for achieving clean water goals without costly regulations.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0299.1.001.003

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

These written comments will focus on the impacts specific to INVISTA Waynesboro. With respect to our other concerns we refer EPA to the written comments provided by the Virginia Manufacturers Association (VMA) [refer to EPA-R03-OW-2010-0736-0376] and the Federal Water Quality Coalition [refer to EPA-R03-OW-2010-0736-0481].

Backstop Allocations for Virginia Industrial WWTPs Should Be the Same as those Allocations Found in the State WIP

The EPA has proposed imposing backstop allocations for state Watershed Implementation Plans that the Agency has determined do not meet the requested pollutant loading reductions and/or reasonable assurance criteria. EPA has proposed implementing moderate backstop allocations for Virginia point sources. Under a moderate backstop, the waste load allocations (WLAs) for industrial WWTPs and non-significant WWTPs are assumed to be at the same level as the Virginia draft Phase I WIP allocations.

INVISTA agrees that the current WLA established by Virginia general nutrient permit (including INVISTA - Waynesboro), and reflected in the draft Phase I WIP and Draft TMDL, are appropriate for industrial discharges, including significant industrial dischargers. But even more importantly, no matter the results of the Agency's evaluation of the Virginia WIP, WLA's for industrial dischargers should never be less than those specified in the state's WIP. The Virginia waste load allocations established by the state's General Permit for Total Nitrogen and Total Phosphorus Dischargers and Nutrient Trading in the Chesapeake Bay Watershed, and by extension, the Virginia WIP allocations, are based on a long history of modeling exercises, data collection and on-the-ground research. Virginia's proposal has been fully vetted through notice and comment rulemaking. The modeling and data analysis has been transparent and enabled all stakeholders to understand the process and the data. The Virginia WIP accounts for the facility-specific nature of industrial discharges. The Virginia Department of Environmental Quality (VDEQ) has taken the time to understand how the differing process and wastewater characteristics as well as economics of each industrial facility results in varying wastewater discharge characteristics and thus differing impacts on water quality. With this in mind and based on extensive modeling and data analysis, the VDEQ has matched the appropriate WLAs with each industrial facility. EPA cannot ignore the work conducted by VDEQ and thus should not apply arbitrary nutrient loading limits as a result of its backstop efforts.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0299.1.001.004

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

Backstop Allocations Must Be Based on the Characteristics of Industrial Facilities

The Draft TMDL, as part of its high level and full backstop allocation descriptions, proposes to reduce the WLAs for industrial WWTPs to "a level where the reduction rates for significant industrial WWTPs by jurisdiction are equivalent to the significant municipal WWTP reduction from WIP to E3 (3 mg/l TN and 0.1 mg/l TP)." Applying concentration performance capability similar to a POTW upon an industrial facility is inappropriate. As we understand, the high level and full backstop allocations are based on the ability of publicly owned treatment works (POTW) to meet these limits through facility upgrades. However, the assumptions made and data evaluated for influent nitrogen and phosphorus concentrations and treatment and design capabilities at POTWs are not applicable to industrial operations, such as ours, that are generating and treating an entirely different wastewater stream.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0300.1.001.013

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

Table 8-6 on page 8-11 of the draft TMDL discusses backstop allocation options that could be enforced by EPA if WIPs do not meet the two-tier standard expected by EPA. One of the options would be:

- "requiring 50% of urban MS4 lands to meet the aggressive performance standard through retrofit/ redevelopment; 50% of unregulated land treated as regulated, so that 25% of unregulated land meets aggressive performance standard designation as necessary. "

This option is proposed for both the moderate, high, and full backstopping scenarios in the draft TMDL. VDOT asserts that it is unreasonable to develop a moderate backstop level option that is identical to the full backstop option. This inequity is particularly troublesome because the cost of implementing urban stormwater retrofits for an MS4 within an urbanized area would be one of the most costly options per pound of nutrient removal. According to the National Research Council publication entitled *Urban Stormwater Management in the United States* (2008), retrofitting an existing urban area with stormwater management designed for nutrient removal can be as high as \$850,000 per city block. According to the Center for Watershed Protection, the cost of stormwater retrofits per acre of treatment can range from \$40,000-120,000. Given these significant costs, VDOT requests that EPA identify a graduated series of backstop options that are commensurate with the different levels rather than mandating retrofitting/redevelopment actions for the urban MS4 sector.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0300.1.001.015

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

On pages 8-14 to 8-15 of the draft TMDL, it states that "In the urban lands covered by MS4 permits, the TMDL WLAs for jurisdictions receiving a moderate backstop (Virginia) makes an assumption that the MS4 permit has controls sufficient to implement a performance standard equal to the nutrient and sediment reductions that would result from the following practices:

Regions with karst topography (low permeability); Coastal Plain Lowlands (groundwater).

- 50 percent of area-impervious cover reduction, e.g., cisterns and collections systems to capture rainwater for reuse
- 30 percent of area-filtering practices e.g., sand filters, bioretention, dry wells, designed to reduce nitrogen by 40 percent, phosphorus by 60 percent, and sediment by 80 percent from a pre-EMP condition.
- 20 percent of area-infiltration practices e.g., infiltration trenches and basins, designed to reduce nitrogen by 85 percent, phosphorus by 85 percent, and sediment by 95 percent from a pre-BMP condition.

Ultra-urban regions- defined as high- and medium-intensity land cover.

- 50 percent of area-impervious cover reductions, e.g., cisterns and collections systems to capture rainwater for reuse.
- 30 percent of area-filtering practices, e.g., sand filters, bioretention, dry wells, designed to reduce nitrogen by 40 percent, phosphorus by 60 percent, and sediment by 80 percent from a pre-BMP condition.
- 20 percent of area-infiltration practices, e.g., infiltration trenches and basins, designed to reduce nitrogen by 85 percent, phosphorus by 85 percent, and sediment by 95 percent from a pre-BMP condition.

Other urban/suburban regions

- 10 percent of area-impervious cover reduction.
- 30 percent of area-filtering practices, e.g., sand filters, bioretention, designed to reduce nitrogen by 40 percent, phosphorus by 60 percent, and sediment by 80 percent from a pre-BMP condition.
- 60 percent of area-infiltration practices designed to reduce nitrogen by 85 percent, phosphorus by 85 percent, and sediment by 95 percent from a pre-BMP condition.

EPA assumes that the applicable MS4 performance standard applies to 50 percent of urban lands through a combination of retrofit and redevelopment requirements. Jurisdictions may meet the WLA assumptions by: (a) applying a different set of practices that would result in equivalent nutrient and sediment reductions, (b) applying a more aggressive performance standard on a smaller percentage of urban lands included within the WLA, or (c) apply a less aggressive performance standard on a larger percentage of urban lands as long as the total nutrient and sediment reduction from the urban lands assumed to be within the WLA are equal to or greater than the reductions that are assumed within the WLA compared to a pre-BMP condition.

The stormwater WLA also assumes that 50 percent of urban lands that are not covered by MS4 permits are treated like MS4 areas, meaning that 25 percent of unregulated stormwater (i.e., 50 percent of 50 percent) is assumed to meet the performance standard for nutrient and sediment reductions described above. Before imposing such controls, it is assumed that (1) unregulated sources will someday be regulated under the NPDES permit program through appropriate designation/rulemaking/permits; and (2) the categories' projected load reductions (based on NPDES effluent controls consistent with the WLA) will result in those needed reductions. As explained above in Section 8.3.1, additional controls would be imposed only after the source is designated or otherwise regulated by an NPDES permit, and after an effective NPDES permit coverage is established.

Finally, the stormwater WLA assumes that all areas subject to a construction general NPDES permit will implement erosion and sediment control practices that would result in a 25 percent reduction in nitrogen, a 40 percent reduction in phosphorus and sediment compared to a pre-BMP condition on bare, construction land."

VDOT is concerned with the proposed practice of mandating stormwater management practices to such broad physiographic types. As an agency that maintains thousands of miles of roads and operates approximately 160 facilities in the Chesapeake Bay watershed within many physiographic regions, this initiative would further complicate the implementation process. According to the Clean Water Act, and the MS4 /NPDES regulations, specific BMPS would need to be developed by a MS4 permittee to ensure that their pollutant loadings achieve the WLA for each impaired waterbody. This process requires consideration of the specific conditions in an impaired waterway. Given that, VDOT believes it is unnecessary and redundant to place prescriptive actions on the allowable BMPs that could be used within what are very broadly defined physiographic types. VDOT requests that EPA work closely with the states to allow maximum flexibility in the alternatives for the backstop options. These options should not require specific BMPs but allow all effective structural BMPs and non-structural actions, including nutrient exchange, to be used to achieve pollutant load reductions.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0314.001.008

Author Name: Santulli Thomas

Organization: Southern Tier Central Regional Planning and Development Board (STCRPDB)

State Watershed Implementation Plans should present reasonable strategies for meeting those allocations - without federal backstop requirements.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0376.1.001.013

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

Virginia's WIP included TN and TP allocations for industrial dischargers that are supported by the regulatory process and available science. EPA included those allocations in its partial backstop allocations. VMA supports the TN and TP allocations for industrial point sources included in EPA's partial backstop.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0378.1.001.004

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

2. Built upon a decade of stakeholder involvement, the Pennsylvania WIP comes closest to providing a fair, realistic and achievable approach to nutrient reductions.

No one will claim that the proposed Pennsylvania WIP is perfect; there are clearly some areas for potential improvement. However, a decade of stakeholder dialogue and compromise has lead to a WIP which comes closest to

providing a fair, realistic and generally achievable approach to nutrient and sediment reductions over the timeframe to achieve interim objectives by 2017 and longer-term objectives by 2025.

What is most important to understand is that for certain sectors, including significant municipal and industrial point sources, the Pennsylvania WIP represents a series of commitments and courses of action that are already well underway. Although painful and expensive, the Pennsylvania WIP reflects actions that industry and publicly-owned treatment works ("POTWs") have engaged to deliver - with real effort and real dollars expended and committed.

That commitment needs to be viewed in context. The Pennsylvania WIP framework sets specific objectives for nitrogen and phosphorus loadings from major point sources, recognizing that in Pennsylvania all point sources taken together amount to just 12% of all nitrogen loads, 29.6% of all phosphorous loads, and a mere 0.6% of sediment loads generated in Pennsylvania that are delivered to the Bay.[FN1] Put another way, non-point source loads are and remain the vast majority of nutrient and sediment loadings to the Bay - and even if every sewage treatment plant and industry were to shut down, those non-point source loadings would remain a loading challenge to the Bay.

At this point, all but the non-significant POTWs (those with a design flow < 400,000 gpd) will be covered by cap loads imposed in permits issued by December 31, 2010, with the cap loads for the vast majority of Phase I and 2 systems becoming effective over the next two years. All of these systems are set to achieve agreed upon limits based upon concentrations of 6.0 mg/l of total nitrogen ("TN") and 0.8 mg/l of total phosphorus ("TP") at their design average annual daily flow. And since many, if not all of these plants, are not currently operating at their design flow rates, the actual load delivered to the Bay is anticipated to be somewhat lower.

For all significant industrial discharges, DEP has already proceeded with implementing cap loads through its Chesapeake Bay Industrial Wastewater Compliance Plan dated January 2010 (the "2010 Compliance Plan"), which formed the basis for allocating TN and TP loadings to all major industrial users. Applying the 2010 Compliance Plan, in early March 2010, DEP issued letters to each major industrial facility under 25 Pa. Code §92.8a, requiring the submission of plans and schedules to meet the proposed TN and TP cap loads. Those submissions were due in early September 2010, and we understand that most or all facilities submitted such a plan and schedule. Based on information from Chamber members, those facilities are already underway with investments - in some cases significant investments - to meet the cap loads proposed by DEP even in advance of those cap loads actually appearing in final NPDES permits.

The fact that these commitments have been made, and that such expenditures are already underway, is a crucial consideration in framing any WIP or TMDL. Once such commitments are made and projects are underway - as is the case with many communities and industries - one cannot simply change directions and objectives. One of the corollary requirements of "fair, reasonable, and achievable" is predictability and consistency. Municipalities and industries cannot be expected to commit and expend hundreds of millions of dollars (and taxpayers and consumers cannot be expected to ultimately pay the price of such investments), only to face a governmental "bait-and-switch" that renders such commitments a nullity and investments a waste of resources.

[FN 1] Percentages based on table entitled "Pennsylvania 2009 Nutrient and Sediment Loads Delivered to Chesapeake Bay EPA Phase 5.3 Watershed Model" in the Pennsylvania Chesapeake Watershed Implementation Plan (Sept. 2010) at pg. 13.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002.

Comment ID 0379.1.001.004

Author Name: Shields Wyatt

Organization: City of Falls Church, Virginia

Reasonable Assurance

The EPA has concluded that Virginia's WIP fails to comply with EPA's July 1,2010 and August 13,2010 nutrient and sediment allocations and does not adequately establish reasonable assurance. EPA has established what it is calling a "backstop allocation" in response. This backstop is meant to "...reduce the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions' draft Phase I WIPs addressing nonpoint source reductions." This approach to urban stormwater differs from the approach taken by Virginia in its Draft WIP. Virginia's Draft WIP does not mandate retrofits/restoration.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0401.001.003

Author Name: Rohrer L.

Organization:

We question the "reasonable assurance" offered EPA's backstops, as current regulations and detail new requirements are both unclear. Instead of forcing states to regulate their way out of "backstops" we urge EPA to allow Virginia to implement its plans for achieving clean water goals - without a burdensome regulations.

Response

Please refer to the response for comment 0229.1.001.005. Please also refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0546.1.001.001

Author Name: Cameron Beverly

Organization: City of Fredericksburg, Virginia

The City of Fredericksburg owns and operates a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit. The City also operates a municipal separate stormwater sewer system ("MS4") that discharges stormwater within the Chesapeake Bay watershed pursuant to a state-issued NPDES permit.

The City has significant concerns with EPA's Draft TMDL and objects to EPA's threatened "backstop" actions against WWTP, MS4 and other permit holders. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations")

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0684.1.001.006

Author Name: Saunders Jim

Organization: Saunders Brothers, Inc.

No to Federal Backstops

- Virginia's Watershed Implementation Plan (WIP) reflects some practices for both agriculture and turfgrass that we strongly believe, given proper implementation and funding, will result in significant water quality improvements.
 - o Agricultural Resource Management or Conservation Plans to meet the individual conservation needs of each farm will result in progress without mandating a "one-size-fits all approach".
 - o We support working with the turfgrass/green industry to make progress through utilizing nutrient management plans, amending the content of certain fertilizer products, and education homeowners, while carefully balancing the costs and unintended consequences of under-managed or under-fertilized turfgrass.
- EPA does not need to substitute its version of heavy-handed, government regulation if the state chooses to build off of the incentive-based practices and programs that have resulted in progress over the decades.
- EPA's "backstop" measures put the TMDL will certainly result in more costs for permitted facilities, such as large animal feedings operations, processing facilities, and urban landscapes.
- We question the "reasonable assurance" offered by EPA's backstops, as current regulatory authority and details on new requirement are both unclear.
- Instead of forcing states to regulate their way out of "backstops," we urge EPA to allow Virginia to implement its own plans for achieving clean water goals-without costly, burdensome regulations.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0710.001.004

Author Name: Berger Karl

Organization: Metropolitan Washington Council of Governments (COG)

In the watershed model input deck for the hybrid TMDL relating to Virginia, did you take out whatever load reductions VA had ascribed to its permitted urban stormwater section and replace them with the load reductions from the 50% retrofit option?

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

21.3 - GENERAL/MISCELLANEOUS

Comment ID 0038.1.001.012

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

It is important for the EPA to keep in mind that in order to decrease the amount of damage done on the bay, steps must be taken in other states to prevent pollution from running downstream in the Virginian area. If the EPA only focuses on the main part of the bay, the problem will never be resolved.

Response

Please see the response to comments 0267.1.001.006 and 0568.1.001.007 for more information on how upstream loadings of pollutants contribute to the downstream non-attainment of water quality standards.

Comment ID 0038.1.001.013

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Jenning's presentation also pointed out that most of the pollution damaging the bay is coming from agriculture, wastewater, and urban runoff. If it is well known that this is where the problem lies, I believe the EPA should focus all their energy on the causes of the main problems. Once these are under control, it will be easier to focus on the less damaging causes of pollution.

Response

Please refer to Section 4 of the TMDL report for information on sources of nitrogen, phosphorus, and sediment to the Chesapeake Bay watershed.

Comment ID 0038.1.001.030

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Under the Clean Water Act, the EPA has the obligation and responsibility to protect our waters and prevent pollution and preserve the wildlife within our lakes, rivers and streams. In the 1972 amendments, the permit program "NPDES" or "National Pollutant Discharge Elimination System" was formulated and structured to regulate the discharge of pollutants from point sources. Without a permit, point source pollution was considered illegal. While this ruling has been in place for many years, there have been many missed deadlines and insufficient efforts in this area. The Bay still need to lose 63 million pounds of nitrogen and 3.1 million pounds of phosphorus to get to a "healthy" weight of 187.4 million pounds of nitrogen and 12.5 million pounds of phosphorus released into the Bay annually.

Response

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development. Also, please see the response to comment 0153.001.003 regarding the TMDL development and public participation process. Finally, please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0041-cp.001.002

Author Name: Comment Anonymous

Organization:

Virginia's draft watershed implementation plan (WIP) does not provide "reasonable assurance," in other words, the details and a commitment, that a reliable source of funding for farmers is forthcoming. If the state does not provide such assurance that all pollution sources--including agriculture--have the tools to do their part, then EPA has no choice under the law but to tighten requirements on sources it has direct authority to regulate, specifically, wastewater treatment plants, cities, and large animal operations.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0048-cp.001.001

Author Name: Neferu Ana

Organization:

The TMDL current values should be kept in the final version of the document. They cannot be increased! Any increase bears the risk of producing health problems to the entire population living in the Bay region. It should be the responsibility of the states to ensure the maintenance of these levels, but just because they are not able to do so does not justify increasing the TMDL. Backstop allowances are preferable to increasing pollution levels if there is no other way for the states to reduce their releases of pollutants in waters. The health of the ENTIRE population is far more important than the economic well-being of PART of the population affected by pollution reduction measures.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0067.1.001.019

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

To the extent that there are any implementation steps and programs for certain non-point sectors which need to be clarified or refined in the Pennsylvania WIP, then that's where efforts and resources should be directed

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0079.1.001.003

Author Name: Dunning Rich

Organization: City of Hornell, New York

The EPA in its mission to clean up the Chesapeake Bay is doing it's best to design a program that will control nutrient

waste to the Bay. The EPA has taken exception with the New York State DEC's proposed Watershed Improvement Plan. By enacting this draft TMDL (including its backstop measure) as law the EPA is shifting the burden for nutrient removal in New York State from the sources that create the waste but are not point sources to the point sources that are permitted but create little of the delivered waste.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0079.1.001.004

Author Name: Dunning Rich

Organization: City of Hornell, New York

This TMDL may expedite the creation of regulations, but it is arbitrary and inequitable to the citizens of Western New York.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0086-cp.001.001

Author Name: Strait Craig

Organization:

I strongly disagree with the backstop limits of 3 mg/l total Nitrogen and 0.1 mg/l total Phosphorus that are being proposed for point source wastewater treatment facilities. When I first learned of these potential requirements, I questioned the ability of laboratories to accurately and precisely analyze samples to these stringent parameters. In October 2009, I collected three grab samples from the effluent of the wastewater plant that I manage. Each of these samples were split and sent to three different PADEP certified laboratories to be analyzed for dissolved Phosphorus and ortho Phosphorus. Results from the three labs were consistent for only one of the analytical tests performed. Results from the remaining five analytical tests performed varied by as much as 1.3 mg/l between the different labs. This clearly illustrates that the analytical methods used to test Phosphorus, of any species, has a margin of error that is much greater than the proposed 0.1 mg/l requirement. These samples were collected and analyzed according to the

procedures outlined in Standard Methods.

Response

This is a valid concern that jurisdictions will need to be cognizant of when implementing lower nitrogen and phosphorus limits for WWTPs. According to “Standard Methods for the Examination of Water and Wastes” the analytical method for phosphorus detects phosphate at 0.001 mg/L while the analytical method for nitrogen detects total Kjeldahl nitrogen (TKN) at 0.1 mg/L and nitrate-nitrite nitrogen at 0.05 mg/L. All certified laboratories may not be able to achieve these detection limits so WWTP operators will need to ensure that the laboratory they select (or their in-house laboratory) has this capability. There are programmatic actions that jurisdictions may take to ensure that their certified laboratories are aware of the lower method detection limits (MDLs) needed. For example, jurisdictions may designate required MDLs in the permit for those parameters where laboratory detection limits are close to the regulatory limit.

Please refer to the response for comment 0067.1.001.009 regarding backstop allocations. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions’ final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0086-cp.001.004

Author Name: Strait Craig

Organization:

Because of this type of negligence, point source discharges are being unfairly targeted with lower parameters.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions’ final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0089.1.001.014

Author Name: Hunter J. And M.

Organization:

It is known that WV farmers continue to, and have historically installed BMPs without cost-share assistance. The State will be working over the next year to begin capturing these practices to gain credit. Farmers are encouraged to

participate in this endeavor.

We adamantly agree that the threat of the heavy-handed Backstop will not be conducive to this process.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comments 0648-cp.001.002 and 0238-cp.001.002 regarding BMP credits for water quality improvements. Please also see the response to comment 0139.1.001.006 which discusses the issue of economic impacts to individual farmers.

Comment ID 0146.1.001.001

Author Name: Isenberg W.

Organization: Virginia Commonwealth University Center for Environmental Studies. Class: ENVS 601, Professor: P.L. deFur

In the backstop allocations for the different Bay states, all but Maryland and the District of Columbia had point source requirements that mandate all construction land to be subject to sediment and erosion control by a general permit. This however disregards the fact that states like Virginia have these permits but have poor enforcement. There is no "first-step" state level permitting, monitoring, or complaint agency responsible for this. Instead in Virginia, the local governments are responsible for granting the construction permits and are responsible for monitoring and responding to complaints. As a second step if no response is made to a complaint, then concerned citizens can call the local Virginia DEQ office to address it. This not only disregards the fact that local governments, especially in fiscally challenging times, have more incentive to bring development to their governance, but more importantly, local authorities of limited resources and potentially little training are in charge of these permits and the monitoring of compliance. Based on many of my own personal simple roadside, easy access construction site observations, it appears as if they are unable or unwilling to enforce simple installment of silt fences. If anything, there should be more funded and trained enforcement, ideally managed by state level officials. Furthermore, surface or deep mining practices, drilling/exploration for oil and gas (inclusive of the associated roads and off-site disposal areas), tilling, planting, or harvesting of agricultural, forestry, and horticultural crops, livestock feedlots, and railroad construction are in fact exempt from construction permits in Virginia according to the DEQ. Including these sources and increasing enforcement of regulations will help accomplish what the construction permits actually seek to achieve. Otherwise, the backstop allocations will be as dysfunctional as the original WIPs.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002.

Comment ID 0151.001.009

Author Name: Woodford RC

Organization: Chenango County Board of Supervisors

and has not provided regulatory flexibility to allow for implementation of continually improving on-farm practices in response to site-specific environmental variables

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0154-cp.001.004

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- Agriculture currently contributes the highest loads, and has made the least improvements to date, despite the availability of public funding. As a result, the lowest cost per pound reductions available are in this sector and the states should require agriculture to accept the appropriate responsibility for change. The proposed EPA backstop measures and state plans provide the wrong incentives for performance by this sector.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0159.1.001.002

Author Name: Farasy Tom

Organization: Maryland State Builders Association

The EPA is requiring several States to reduce or retrofit with stormwater treatment systems up to 50% of the impervious surfaces in MS4 jurisdictions and 25% in non-MS4 regulated areas. Montgomery County's MS4 is proposing 30% of impervious area retrofit. The issue is that if the area doubles-these requirements and their associated costs will double without any public consideration of their cost-as the WIP's are based on a percentage of a number that is expected to change.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0169.1.001.007

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

Although the proposed backstop allocations reflect the difficulty of achieving significant load reductions from the agriculture and onsite septic sectors, they fall far short of reflecting the difficulty of achieving such reductions from the urban runoff sector. EPA appears to simply assume that the reductions can be achieved because MS4s are subject to federal and state permitting authority under the NPDES, but this assumption fails to recognize that the Localities own, on average, only about 20 percent of the land area within their respective jurisdictions. Therefore, most of the retrofits needed to achieve the load reductions will have to be implemented on private lands over which the Localities have no control in the absence of new development or redevelopment requiring local land use approvals. Eminent domain costs resulting from these requirements will be substantial.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0174.1.001.003

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

EPA-implemented backstops for the urban sector should be based on acres rather than a percent of urban area because the effect of EPA's urban acreage revisions in 2011 could drastically alter the requirements and costs for the urban sector.

Both the EPA backstops and some of the draft State WIPs contained discussion of urban retrofits based on percentages of urban land instead of specific acreage requirements. EPA should define acreage requirements rather than percentage requirements for urban retrofits if backstops are implemented. The calculations for pervious and impervious urban acreage in the current Chesapeake Bay Community Watershed Model are in flux and are likely to increase substantially [FN3] (see comment #1, above). Therefore, all WIP provisions or EPA backstops that focus on restoration or retrofit of a percentage of urban area are likely to also increase substantially in area. Such increases will dramatically increase the requirements and costs on the urban sector.

[FN3] Based on an a memo dated 5/25/2010 received from Peter Claggett (USGS) to Mike Rolband (WSSI), pervious and impervious surfaces are likely to change by a factor of 2 to 3.

Response

In a June 11, 2010 letter from Shawn Garvin (EPA Region 3 Administrator) to the Principals' Staff Committee (accessible at <http://archive.chesapeakebay.net/pubs/TMDLScheduleLetter.pdf>), EPA committed to evaluate whether to revise the Chesapeake Bay model in 2011 by utilizing the results of updates on nutrient management effectiveness and suburban land characteristics. The states and the District are then expected to submit draft Phase II Watershed Implementation Plans, allocating the pollutant loads to a much finer geographic scale, and reflecting any potential revised load distributions and other updates resulting from the revised model. Before 2017, EPA will review its models and determine if further upgrades are needed. In 2017 the states and the District will submit Phase III implementation plans to ensure that all the control measures needed to meet Bay water quality standards will be in place by 2025.

For information on backstop allocations, please see refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0174.1.001.007

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The Chesapeake Bay Model should be improved based on the following recommendations:

2. Any EPA-implemented backstops or Phase I WIPs for the urban sector should be based on acres rather than a percent of urban area because the effect of EPA's urban acreage revisions in 2011 could drastically alter the requirements and costs for the urban sector.

Response

Please see the response to comment 0174.1.001.003.

Comment ID 0182.1.001.014

Author Name: Rowland Jeremy

Organization: Bion Environmental Technologies, Inc.

EPA's regulatory backstop/threat on Pennsylvania pursuant to the Draft WIP further compounds the problem by imposing costly and ineffective mandates that do not address the core problem and which are not adequately modeled.

Response

See response to 0182.1.001.004.

Comment ID 0184.1.001.001

Author Name: Hively Christopher

Organization: Town of Culpeper, Virginia

We own and operate a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We expect to do our part for the Bay restoration. In fact, we completed an extensive upgrade to our WWTP in 2010 to include nutrient removal technology. This upgrade installed a 5 stage biological nutrient removal process, new clarifiers, de-nitrification filters and other improvements necessary for the removal of phosphorus and nitrogen at a cost in excess of \$27 million.

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0193.1.001.005

Author Name: Newsome Michael

Organization: Home Builders Association of Virginia (HBAV)

Virginia does not need, nor should the EPA demand additional draconian clean up actions at this time, especially with no regard to the economic impact and costs of their demands.

Response

Please refer to the response for comment 0229.1.001.005. Please also see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0193.1.001.008

Author Name: Newsome Michael

Organization: Home Builders Association of Virginia (HBAV)

HBAV would also question the wisdom and authority the EPA to mandate that private owners reduce or retrofit their property's impervious surfaces, as may be imposed in the proposed backstop allocations. Both the U.S. Constitution and Virginia Constitution protect private property owners from a "taking without just compensation" by the government. The very high estimated costs associated with the retrofit requirements or mandates in the proposed backstop allocations clearly approach a "taking without just compensation" of private property. HBAV would urge the EPA to seek other less expensive and less intrusive solutions to the clean up of the Bay and its tributaries.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002. Please also see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0194.1.001.005

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

EPA has indicated that point sources may have to go to the "limit of technology" to treat their sewage. This is an incredibly dumb thing to do. Stakeholders spent hundreds of hours developing their point source strategy which again has been communicated to many plant operators. Some plants are in the midst of retrofitting their plants and those retrofits were not based on the lower limits EPA is talking about.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0194.1.001.009

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

The "backstop" TMDL is just a bad idea. If it is instituted in will not speed up the achievement of pollution reductions but will turn the public and the stakeholders against EPA. If you truly want to work in cooperation with us, you will NOT issue a backstop TMDL. When you come right down to it, implementing a backstop TMDL will not make anyone work any harder on this problem. In fact, it will alienate many, and be perceived as "big brother" telling us what to do.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0196.1.001.001

Author Name: Moffett Jesse

Organization: Frederick-Winchester Service Authority

The Frederick-Winchester Service Authority, as a regional wastewater provider, has been a longtime participant in the Bay Initiative which is evident from our voluntary participation as far back as 1998 and with the recent completion of enhanced nutrient removal upgrades at our facilities.

We own three (3) municipal wastewater treatment plant ("WWTP") that discharge highly-treated wastewater within the Chesapeake Bay watershed pursuant to state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

Our efforts along with those of over 120 other facilities discharging within the Bay drainage basin have been remarkable to say the least. In our particular case we have accomplished over a 60% reduction in the number of pounds of nitrogen discharged to the Bay while seeing our critical and necessary service grow by nearly 200% since the start of the Bay Initiative. I am sure that no other contributing source can make that claim.

We expect to continue to do our part for the Bay restoration. In fact, two of our facilities, (Opequon Water Reclamation Facility (12.6 MGD) and Parkins Mill Wastewater Treatment Plant (5.0 MGD)) which are designated as significant dischargers have undergone upgrades to ENR facilities.

Considering that we have just invested close to \$50M dollars in just treatment enhancements to accomplish ENR levels of treatment and to hear EPA's threats of "backstop" action against us and other facilities raises significant concerns. Here we have invested, along with the Commonwealth, in huge capital projects to meet technology stringent limits along with wasteload allocation caps and it will now all be thrown out the window. Customers will be required to pay for the next twenty or thirty years for useless capital investments coupled with excessive O&M costs. With no changes, we are already anticipating chemical and energy costs to increase by potentially 30%. The outcome of all of this being nothing more than throwing money into a "bottomless pit".

Clearly, we have significant concerns with EPA's Draft TMDL and its fairness. The EPA's threatened "backstop" action against WWTPs does nothing but create a road block for success. As WWTPs and point sources in general show positive results and become a smaller and smaller portion of the pie the roughly 80 percent of the nutrient load attributable to nonpoint sources continues to grow unabated.

As a fix, EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations") and possibly the flow basis for allocations to past flow levels (2007 to 2009 average flow rather than design flow). This would reflect an unfair, punitive action by EPA that would do little to advance the Bay cleanup, which honestly depends on major nonpoint

source reductions.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0198.1.001.001

Author Name: Covington Roy

Organization: Chesterfield County, Virginia

We own and operate two municipal wastewater treatment plants ("WWTP") that clean and discharge highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit. We have invested well over \$100 million dollars in nutrient upgrades at these plants in the past three years and anticipate additional operating costs to exceed \$1 million dollars per year. These costs of course will borne by our utility rate payers here in Chesterfield County.

We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0198.1.001.003

Author Name: Covington Roy

Organization: Chesterfield County, Virginia

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0199.1.001.001

Author Name: Frederick Thomas

Organization: Rivanna Water & Sewer Authority

We own and operate a municipal wastewater treatment plant ("WWTP") that purifies and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We are doing our part for the Bay restoration. In fact, our WWTP is in the process of being upgraded with nutrient removal technology with a cost of approximately \$49,233,000. The cost of this nutrient removal upgrade project at this stressful economic time places undue pressure on our capital budget and will soon add every future year to our operational budget. We are committed to protection of our aquatic streams, rivers and the bay system; however we are already doing more than we were originally asked to do. For example, our wastewater facility discharge wasteload allocation was granted at 6 mg/L total nitrogen and 0.5 mg/L total phosphorus. We decided to design and upgrade our nutrient removal project to a total nitrogen concentration of 5 mg/L and total phosphorus concentration of 0.3 mg/L. We are now close to two years into this project with greater than 65% completed.

Based on the above information, we have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our wastewater facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality

Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0199.1.001.003

Author Name: Frederick Thomas

Organization: Rivanna Water & Sewer Authority

We strongly oppose EPA's inequitable proposal to transfer even more burden to urban citizens. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0201.1.001.003

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

Page 4-25 provides: "EPA's intent in creating the MS4 Stormwater Program was to regulate stormwater discharges by requiring the municipalities to develop management programs to control stormwater discharging via the MS4, i.e., stormwater collected by the MS4 from throughout its service area." The existing regulatory program for construction

activities coupled with PennDOT's policies satisfy this intent. PennDOT's service area is the rights of way from its roadways that were located in regulated urbanized areas. PennDOT has policies on erosion and sedimentation, post construction stormwater control, maintenance activities, and fertilizer applications that manage stormwater in its rights of way. Unlike municipal MS4 who may have jurisdiction over the development and use of land within their municipal boundaries, PennDOT has no authority to regulate the use or development of adjacent properties. PennDOT will bear the costs of the implementation of the "new" standards which will be funded using State and Federal monies (i.e., the taxpayer) and would reduce the number of completed projects necessary to protect the safety of the traveling public. Given the potential to impact Federal funds received by DOTs, EPA should consult with FHWA, a sister agency, prior to imposing any additional standards or recommending the expansion of the MS4 area beyond regulated urbanized areas.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its jurisdictional partners in order to achieve this.

Comment ID 0201.1.001.004

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

On page 7-2 of the Draft Bay TMDL, EPA states: "Without a demonstration of reasonable assurance that nonpoint source allocations will be met, a TMDL would have to assign all the necessary reductions to the point sources." PennDOT would like a detailed legal justification for this position. PennDOT maintains that the CWA does not require that a TMDL be achieved through point source reductions only. Rather, the TMDL should be based on the contribution of the activity to the impairment. Making a permittee meet more stringent standards when the permittee is not responsible for that magnitude of contribution is a regulatory taking and a serious violation of the permittee's due process rights. The point source permittees should not have to bear the financial burden caused by sediment contributions from other known sources, e.g., agriculture activities (70% contribution) and timber activities (19% contribution).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0201.1.001.007

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

First, what legal authority does EPA have for setting waste load allocations backstops for the PA WIP? Second, retrofits should not be required of all MS4s. The contribution of the MS4 should be considered. As discussed above in detail, for sediment, the contribution of MS4s to the sediment loads in the Bay are minuscule, so imposing additional standards on MS4s will result in no benefit to the Bay. Retrofits would be extremely costly to PennDOT to implement with minimal benefit to the load allocation.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0201.1.001.009

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

Fourth, PennDOT maintains the position that retrofits can only be required under the MS4 permit program if a project

within the regulated urbanized areas requires an NPDES permit for construction activities and results in an increased discharge. Retrofits are post construction stormwater controls. Post Construction Stormwater Controls are only required for new development or redevelopment projects greater than or equal to one acre. 40 C.F.R. §122.134(b)(5).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0201.1.001.010

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

Fifth, PennDOT further maintains that a permittee can only be subject to retrofits under an NPDES permit for construction activities if the permittee is a contributor to the impairment. As stated above, in Pennsylvania, only 0.6% of the 2009 load allocation for sediment is from point sources. The 0.6% includes contributions from wastewater facilities, industrial facilities, combined sewer overflows, sanitary sewer overflows, NPDES permitted stormwater (MS4s and construction and industrial sites), and CAFOs. See page 10 of the PA WIP. The contribution of sediment to the Bay from PennDOT's MS4 is minuscule. PennDOT's MS4 contribution is addressed through the application of the recently revised PADEP regulations at 25 Pa. Code Chapter 102 to PennDOT's projects.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0203.1.001.001

Author Name: Weindel Uwe

Organization: Frederick County Sanitation Authority

We operate a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

As part of our commitment to the restoration of the Bay, we just complete an upgrade to our Parkins Mill treatment facility which incorporates both nitrogen and phosphorus removal technology at a cost of approximately \$23 million. These improvements have resulted in the doubling of our chemical and energy cost, thus increasing our operating and maintenance costs by approximately 72 percent. This modification has also resulted in sanitary sewer rate increases of over 30 percent over the last five years with additional increases of 5+/- percent annually.

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0206.1.001.001

Author Name: Vass Evan

Organization: Town of New Market, Virginia

We own and operate a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation

findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0209.1.001.001

Author Name: Saunders Thomas

Organization: Town of Kilmarnock, Virginia

We own and operate a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient waste load allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0210.1.001.013

Author Name: Tolbert J.R.

Organization: Virginia Chapter-Sierra Club

It is the Virginia Chapter-Sierra Club's sincere hope that the EPA backstop actions not have to be applied to Virginia. We would prefer to see a plan that is developed by Virginia that meets the assigned load allocations and provides reasonable assurance that the actions necessary to achieve those allocations will be enacted.

However, if Virginia fails to amend the draft WIP and provide reasonable assurance than we believe it is the responsibility of the EPA to enact those backstops included in the draft TMDL.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0211.1.001.012

Author Name: McCarthy R.

Organization: Town of Erwin, New York

the TMDL allocations imposed by EPA are unachievable, are beyond the existing technology, and there is no scientific evidence that the high level backstops dictated by EPA can be achieved in the climate in New York State;

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please refer to the response for comment 0080-cp.001.002 regarding allocations to New York.

Comment ID 0211.1.001.015

Author Name: McCarthy R.

Organization: Town of Erwin, New York

the Town of Erwin opposes the EPA increasing its federal regulatory control and usurping state and local jurisdiction and authority in order to impose their TMDL, instead of working collaboratively with State agriculture and environmental protection agencies, Soil and Water Conservation Districts and local communities to address the Chesapeake Bay Watershed water quality concerns;

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0212.1.001.005

Author Name: Greenland Victoria

Organization: Arlington County, Department of Environmental Services, Virginia

In order to maximize the use of limited resources and minimize future financial burdens on Arlington County residents, Arlington supports a TMDL implementation framework that allows jurisdictions to address nutrient allocations among wastewater and stormwater sources within jurisdictional boundaries to achieve overall TMDL load allocations in the most cost-effective manner possible.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0215.1.001.001

Author Name: Milo J.

Organization: Maury Service Authority (MSA)

The Maury Service Authority owns and operates the Lexington-Rockbridge Regional Wastewater Treatment Plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We are doing our part for the Bay restoration. Our WWTP is being upgraded with nitrogen removal equipment in our oxidation ditch, chemical feed equipment, additional digesters and new effluent filters to remove phosphorous. This \$14,000,000 upgrade project will increase energy consumption, increase chemical consumption, increase sludge hauling efforts and generally increase operating costs at the plant by about 10%. Sewer bills will increase for a small community who is still paying for a new wastewater treatment plant that they build in 1999.

We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0215.1.001.003

Author Name: Milo J.

Organization: Maury Service Authority (MSA)

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations,

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0226.1.001.005

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

More work remains to ensure the TMDL is based on complete and scientific foundations with a demonstrated ability to achieve meaningful environmental improvements. EPA should fully consider unintended consequences and ensure the proposals can be implemented in a cost-effective manner over a reasonable time period.

Response

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development. Also, please see the response to comment 0153.001.003 regarding the TMDL development and public participation process. Finally, please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0226.1.001.009

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

The backstops proposed by the EPA further reduce the limits, which will result in the need to expend even more public resources even though the Chesapeake Bay will not benefit. The EPA has supported the concept of regulatory stability, recognizing the significant expenditures and programmed expenditures by the Virginia POTWs. The imposition of the backstops undermines the concept of regulatory stability. Virginia's regulatory approach has a lengthy and relevant history on establishing nutrient wasteload allocations that must be taken into account when establishing those same types of wasteloads in the TMDL. This is made evident as set forth in Virginia's EPA approved Water Quality Management Planning Regulation, 9VAC25-720 and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820, which include stringent point source regulations. Those regulations established a comprehensive program for the regulation of POTWs.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0226.1.001.015

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

Hanover generally supports the comments provided by the Virginia Association of Municipal Wastewater Agencies and the Virginia Association of Municipal Stormwater Agencies and incorporates those comments by reference as if fully set forth herein. We request that EPA fully consider and address all of those comments.

Response

Regarding your request to consider VAMWA's comments, EPA has fully addressed VAMWA's comments in their entirety in the responses to comments 0288.1.001.001 thru 0288.1.001.036 and 0288A01.001.001 thru 0288.A51.001.001. EPA has also fully addressed VAMSA's comments in their entirety in the responses to comments 0293.1.001.001 thru 0293.1.001.027, comments 0575.1.001.001 thru 0575.1.001.008 and comments 0576.1.001.001 thru 0582.1.001.001.

Comment ID 0227.1.001.007

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

In its TMDL document EPA describes, thoroughly and accurately, the lengthy history leading to its development of the draft TMDL, including the legal framework (Sections 1 - 3), much of which has been summarized above. In Section 8, it describes the development by the states of their Watershed Implementation Plans, EPA's evaluation of them, and the use by EPA of "backstop" allocations which EPA developed, based on its exhaustive modeling and data-gathering efforts, to ensure that, where the WIPs fail to demonstrate eventual achievement of the loading caps, the "backstop" allocations will do so.

Over the course of more than two decades EPA has worked closely with the Bay states to develop effective strategies to restore the water quality of the Bay and to achieve compliance with water quality standards. The framework which allows each state to develop a WIP, in which the state may establish allocations for sources within its boundaries which will achieve water quality standards for each segment before EPA applies backstop allocations (which are applied only if needed), is part of that joint effort. In its WIP each state must also provide assurance that it has and will use the authority and resources necessary to ensure that its allocations will be fully implemented so as to achieve eventual compliance with water quality standards.

As discussed above, EPA is legally required to establish the TMDLs on its own under Sections 303(d) and 117(g) of the Clean Water Act. However, allowing the states the "first shot" at prescribing effective loading allocations for sources within their jurisdictions lets them determine which combination of point source and nonpoint source controls will provide, from their perspective, the most cost-effective or preferable approach to achieve water quality goals, provided each segment's overall loading cap is satisfied. As EPA stated in Section 8.3: "Backstop allocations were established to fill a loading shortfall in the jurisdiction's draft Phase 1 WIP or to increase the level of reasonable assurance that the overall TMDL pollutant cap will be achieved." To the extent that a WIP does not provide a combination of load and wasteload allocations to sources and categories of sources which is sufficient to satisfy the TMDL requirements which EPA provided to the states during the summer of 2010, based on its modeling results, for any segment within its jurisdiction, EPA's "backstop" allocations were applied so as to reasonably assure compliance, as EPA is required to do under Clean Water Act Sections 303(d) and 117(g). Given the serious deficiencies in most of the draft Phase 1 WIPs it was necessary for EPA to make substantial use of the backstops.

The result of this approach is that EPA is holding itself ultimately accountable for ensuring that the resulting allocations meet the requirements of Section 303(d) while allowing the states to propose allocations of their own through their WIPs. For the reasons described above, this strategy, and EPA's implementation of it, are fully supported by the Clean Water Act.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0230.1.001.009

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

The Virginia WIP recognized the efforts made by HRSD and the rest of Virginia's wastewater treatment organizations to meet the 2005 waste load allocations, leaving the point source nutrient allocations essentially unchanged from the 2005 levels. The expanded nutrient trading program proposed in the Virginia WIP would allow local governments flexibility in meeting the additional challenges they face in removing nutrients from urban runoff. While the TMDL does not address affordability, local governments do not have the option to ignore cost and must have the flexibility to implement the most cost effective solutions. The TMDL virtually eliminates this flexibility.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0230.1.001.011

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

HRSD previously submitted comments (on December 18, 2009) through VAMWA in response to EPA's September 19, 2009 Notice and Initial Request for Public Input regarding the development of a Chesapeake Bay TMDL. VAMWA is a statewide association that includes the owners and operators of publicly-owned wastewater treatment works ("POTWs") throughout Virginia. Many of VAMWA's members discharge to the Chesapeake Bay or its tributaries pursuant to state-issued National Pollutant Discharge Elimination System ("NPDES") permits. In addition to laying out a number of Guiding Principles VAMWA felt strongly must be considered by EPA as it developed the TMDL, VAMWA also

commented extensively on the need for regulatory stability for POTWs and made a number of recommendations regarding the development of the TMDL.

VAMWA submitted comments on December 18, 2009, in response to EPA's September 19, 2009 Notice and Initial Request for Public Input regarding the development of a Chesapeake Bay TMDL. In addition to laying out guiding principles for a reasonable and effective TMDL,[FN1] VAMWA commented extensively on the need for "regulatory stability" for POTWs relative to the existing upgrade program currently underway and also offered many policy and technical recommendations. [FN2]

Unfortunately, EPA has largely disregarded VAMWA's December 2009 Comments. Moreover, EPA has incorrectly and illegally rejected Virginia's Draft WIP and instead has proposed "backstop" allocations based on EPA's previously proposed, but withdrawn and never promulgated, "reasonable assurance" regulation. The result is a TMDL that is fundamentally flawed on both technical and legal grounds. EPA's present course is obviously and openly straining the otherwise collaborative, multi-jurisdictional Bay Program partnership. Beyond the unfortunate implications of those actions for the Bay Program, HRSD is concerned that EPA's recent approach may delay rather than further the Bay restoration process.

As explained in greater detail later in these comments, EPA's Draft TMDL suffers from a number of serious deficiencies that negatively impact both the likelihood of a successful restoration process as well as the reasonableness and legality of the TMDL.

[FN1] These Guiding Principles included sound science, cost-effectiveness, feasibility, an holistic approach, ancillary benefits, climate change mitigation, and regulatory stability. Although EPA has acknowledged that many of these are important concepts, EPA's Draft TMDL is inconsistent with its avowed goals. Specifically, EPA has failed to: (1) base allocations on sound science; (2) consider cost-effectiveness as a part of making source sector allocations (there are no discussions regarding how much the Bay TMDL will cost, whether we will be spending our dollars in the most cost-effective way, and whether there will be an adequate environmental and economic benefit for our financial commitment); (3) make appropriate timing accommodations to make the TMDL realistically feasible (a phase-in of efforts or tying implementation to funding); (4) consider and include additional reasonable options for reductions (filter feeders, innovative nutrient reduction technologies, air deposition); (5) weigh various clean-up options based upon the potential for ancillary benefit (for example, cover crops can provide not only nutrient reductions but also additional positive environmental and aesthetic impacts); (6) avoid actions that may negatively contribute to climate change (additional POTW reductions can result in more greenhouse gas emissions and the unnecessary use of expensive electricity (and associated fuels) along with expensive treatment chemicals whose manufacture and distribution have additional environmental impacts); (7) and preserve existing POTW allocations.

[FN2] VAMWA's December 2009 Comments are attached hereto as Appendix 1, and are incorporated by reference. VAMWA also incorporates by reference all References listed at the conclusion of these comments and all additional Appendices attached to these comments. Additionally, VAMWA incorporates by reference all EPA files or documents, no matter the form, and all materials from EPA Chesapeake Bay teams, committees, subcommittees, or workgroups pertaining to Bay clean-up efforts.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0230.1.001.044

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

VIII. EPA'S BACKSTOPS ELIMINATE PLANNED AGRICULTURAL LOAD REDUCTIONS DESPITE THOSE CONTROLS BEING AMONG THE MOST COST-EFFECTIVE MEASURES FOR IMPROVEMENT

Section 6 of the Draft TMDL document describes EPA's allocation method for relating relative impact to needed controls. The methodology recognizes that nonpoint sources cannot attain the same levels of control as point sources, and calls for 55-75% of E3 nitrogen controls from nonpoint sources such as agriculture. However, EPA's "backstop" allocations appear to have been accompanied by increases in allocations to nonpoint sources, such that agriculture in many basins fall well short of the intended level of nitrogen control. In so doing, EPA has dispensed with the fairness/equity concepts developed by its own TMDL work group, and shifted implementation away from the most cost-effective, environmentally beneficial practices.

Overall, EPA's Draft TMDL appears to put Virginia agriculture at a 48% level of nitrogen control (relative to E3), well below the 55-75% level indicated by the relative-effectiveness allocation methodology and far short of controls called for in both Virginia's Tributary Strategy and Draft WIP (Figure 5). This is partly driven by the lower levels of effort in the Potomac River Basin (51%), but primarily driven by an extraordinarily low (17%) level of effort for the James River Basin, which is akin to the 2009 progress levels (Figure 6). HRSD fails to comprehend how EPA can make deep and costly cuts to point source allocations in the James River Basin while concluding that agriculture requires no further improvements in this basin.

<Figure 5: "Comparison of agricultural controls among model scenarios" on page 49 of Comment Letter EPA-R03-OW-2010-0736-0230>

Agricultural management practices include most of the practices that the EPA and others (e.g., Chesapeake Bay Commission, 2004) have identified as the most-cost effective, including nutrient management, conservation tillage, cover crops, and riparian buffers. Relative to many urban and wastewater-based practices, these practices provide much high levels of ancillary environmental benefits such as wildlife habitat, stream habitat protection, flood control, and greenhouse gas reduction. To illustrate these points, Appendix 43 presents a case study of alternative nutrient controls

for the York River basin using the BMP Benefit Planner ver. 1.1.[FN74] The case study demonstrates that the DO-based overall loading goal can be achieved in a much more cost-effective, environmentally beneficial manner by a different combination of point and nonpoint source controls than reflected in the draft TMDL allocations.

<Figure 6: "Comparison of agricultural nitrogen controls among basins for EPA's proposed TMDL scenario" on page 50 of Comment Letter EPA-R03-OW-2010-0736-0230>

HRSD expects EPA to allocate point and nonpoint sources in an equitable manner that requires a high level of effort from both sectors. In particular, EPA must remedy the low level of agricultural controls proposed for the James River basin, consistent with the widespread understanding that the agricultural sector has abundant opportunities for improvement and cost-effective load reductions.

[FN74] Malcolm Pirnie, Inc., working on behalf of VAMWA, has developed a spreadsheet based model to compare implementation scenarios with regard to environmental sustainability and cost effectiveness. More specifically, the BMP Benefit Planner ver. 1.1 considers energy usage, indirect and direct GHG emissions, carbon sequestration, costs (i.e., capital, operations and maintenance, annualized), and other ancillary benefits (i.e., wildlife habitat, instream habitat, aesthetics, public health, flood hazard mitigation, and groundwater re-charge and base-flow protection). The model addresses a number of common management practices involving wastewater upgrades and various agricultural and urban practices.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0235.1.001.001

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

Poquoson is a coastal community. The City has existed alongside and treasured the Chesapeake Bay long before there were environmental movements or formal efforts to protect it. The Bay is our livelihood. Poquoson has consistently complied with the Chesapeake Bay Act, creating protected buffer areas and regulating runoff and sediment. We have constructed a city-wide sewer system and upgraded pump stations. Poquoson has the highest sewer hookup rate in the area, exceeding 99% connection.

Poquoson is an active member of the Hampton Roads Planning District Commission (HRPDC). The City has adopted the comments found in the November 8, 2010 letter authored by the HRPDC (re: Docket I.D. EPA-R03-OW-2010-0736)

and sent on behalf of the City and other member communities.

Response

Thank you for your comments.

Comment ID 0235.1.001.004

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

Poquoson and other coastal communities that drain directly to the Bay are being penalized with overly rigorous requirements based on inland river and stream impairments.

Response

Please see the response to comment 0235.1.001.014.

Comment ID 0235.1.001.012

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

Poquoson is a low-lying area, with a maximum elevation of approximately 10 feet above sea level. Some of our streets and lands experience almost-daily tidal inundation. A significant portion of Poquoson's drainage conveyance system experiences reversed flow twice a day during high tides, or is continually submerged. It is impossible to separate what pollutants are coming from upland development, and what pollutants are carried in with the tide. Nutrients, sediment and salt from the bay are found and cannot be separated from our yards, pipes, and ditches. This limits water re-use markets; makes water sampling ineffective; and eliminates many treatment options.

Prior to putting its draft stormwater regulations on hold, Virginia was developing regionally-based treatment recommendations, focusing on what would actually work in each of the state's geographic areas. The new EPA backstop measures revert to a statewide, "one size fits all" approach. Given our region's high groundwater, poor soils and low elevations, we question whether we can physically construct enough treatment measures to meet the backstops.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Please also see the response to comment 0235.1.001.011 regarding sediment and nutrient loads associated with tidal shoreline erosion.

Comment ID 0235.1.001.014

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

The EPA appears to be ignoring the impact of placing Poquoson and other coastal communities into upland river watersheds that do not actually receive our storm water runoff. This will lead to allocations that are not scientifically justified, and to localities having to address other watersheds' impairments. The EPA website places Poquoson in two watersheds: Watershed 02080101, the Lower Chesapeake Bay; and Watershed 02080108, Lynnhaven-Poquoson. TMDL maps and Virginia's James River Tributary strategy place Poquoson in the James River watershed. Poquoson does not drain to the James River. It drains to the Chesapeake Bay. On its website, the EPA acknowledges that not all drainage divides shown on its maps are accurate.

Making allocations to the City based on James River impairments and water quality is akin to "guilt by association." While Poquoson may be located within short distance of the James, its receiving streams do not share the river's chlorophyll a impairment. No action taken within City limits will help improve water quality in the James River. The decision to eliminate coastal watersheds and to arbitrarily include coastal communities in nearby river basins will result in scientifically unjustifiable allocations. In Poquoson's case, this random drawing of a line on a map will cost our citizens millions of dollars as we are compelled to alleviate an impairment we did not cause and cannot remedy.

Response

EPA agrees that the city of Poquoson drains into two minor rivers that drain into the main Bay. Even though Poquoson does not drain directly into the James River, it still has an effect. The mainstem Bay water is clearly connected to the tidal James, and the counter-clockwise circulation pattern in the Bay causes water draining from Poquoson to travel upcurrent of the mouth of the James River. Please see the response to comments 0267.1.001.006 and 0568.1.001.007 for more information on how upstream loadings of pollutants contribute to the downstream non-attainment of water quality standards.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0249.1.001.010

Author Name: Mixell John

Organization: Fort Littleton Wastewater

The Backstop provisions in the draft EPA TMDL for the Chesapeake Bay are severe and in some cases unachievable. The Backstop, if implemented, will create severe hardship on most of the residents and businesses in our community and beyond. The actions will likely be legally challenged and progress towards Chesapeake Bay goals will be further delayed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0252.1.001.016

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

The forth specific comment is that Frostburg must get credit for its and other regional efforts and locally developed and implemented plans so that a fair allocation of effort and cost is applied to the Bay TMDL control plan; and that the State play fair with local stream mandates while the Bay focus is ongoing.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water

quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Finally, it is EPA's desire to credit all water quality improvements as they occur. EPA has requested that nitrogen, phosphorus and sediment controls be reported annually. This data will be compared with water quality monitoring throughout the watershed so that loads can be tracked and verified.

Comment ID 0253.1.001.001

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

Thank you for the opportunity to comment on EPA's Draft TMDL for the Chesapeake Bay and Virginia's WIP. The County of Henrico, Virginia (the "County"), understands and appreciates that the Chesapeake Bay is a nationally important natural resource. It fully supports efforts to improve the Bay's water quality. However, the County is concerned that the allocations and pollution limits ("backstops") established by EPA in its draft TMDL are unrealistic and unachievable, especially in the time frame required by the TMDL. Unrealistic goals will not result in sustained improvement of the Bay's water quality.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0253.1.001.005

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

As a matter of first principles, the County is concerned with EPA's decision in the draft TMDL to reject Virginia's Watershed Implementation Plan (WIP) and impose "backstops." EPA has no authority under the Clean Water Act (CWA) to reject a state's implementation plan. If EPA elects to preserve this decision in its final TMDL, it will have acted beyond the scope of its legal authority.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0253.1.001.013

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

Regarding EPA's Virginia WWTP backstops, the County strongly opposes EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow for WWTPs) in lieu of the WLAs in the Virginia Regulations, and we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0254.1.001.002

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

DC Water has been able to locate the WLAs assigned to Blue Plains in the Draft WIP in Table 9-1 of the draft TMDL Report. However, it has not been able to locate the WLAs for Outfall 001 and the combined sewer overflows (CSOs) that will remain after implementation of DC Water's Long Term CSO Control Plan (LTCP).

Response

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Comment ID 0257.1.001.005

Author Name: Christian Stephen

Organization: Berkeley County Development Authority, Berkeley County, Martinsburg, West Virginia

Berkeley County must not only reduce current levels of discharge, but must also account for and limit new and increased flows. Additional discharge resulting from development may be allowed only with corresponding nitrogen and/or phosphorus reductions elsewhere to achieve a "net zero" pollution rate.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0257.1.001.009

Author Name: Christian Stephen

Organization: Berkeley County Development Authority, Berkeley County, Martinsburg, West Virginia

In summary, Berkeley County is prepared to do its "fair share" of nutrient reduction in order to improve local water quality and the Bay; however, the "fair share" needs to be grounded in sound science with an approach that will not unduly burden citizens and will allow Berkeley County to recognize its growth potential in the future.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0260.1.001.002

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

Given the expected success of the point source sector to surpass compliance goals, it is inconceivable that EPA would require the more draconian measures of 3 mg/l TN and 0.1 mg/l TP included in their TMDL "backstop" measures. This is especially troubling when it actually amounts to a penalty for meeting and exceeding existing goals simply to pass additional point source reductions on to sectors that have not been able to present clear evidence of compliance to meet their own reductions. This point was made very clear in EPA's PA WIP Deficiency Letter, September, 2010: Load from point source reductions redistributed to forest, septic, and agriculture sources as possible while still meeting nitrogen, phosphorus and sediment allocations.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0260.1.001.004

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

What makes the entire Bay nutrient reduction effort unconscionable is that EPA is foisting the responsibility for correcting nearly all non-compliance onto the states. Non-point source contributors to sediment and nutrient loads remain largely uncaptured by federal law. This lack of oversight through a federal statutory program is glaring in its omission, both for the Bay and other impacted watersheds nationwide. To exacerbate that situation by excessively targeting those sectors it can exert control over, even if the resulting reductions are de minimus, amounts to nothing more than an accounting process for the sake of showing some activity is occurring, even if it amounts to little in the result column.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0263.1.001.001

Author Name: Foley Sharon

Organization: Harrisonburg-Rockingham Regional Sewer Authority (HRRSA)

The Harrisonburg-Rockingham Regional Sewer Authority (HRRSA) owns and operates the North River Wastewater Treatment Facility (WWTF), a regional municipal wastewater treatment plant serving the City of Harrisonburg, Rockingham County and the Towns of Bridgewater, Dayton and Mt. Crawford, Virginia. The North River WWTF, which has been operating a biological nutrient removal process since 2001, produces an exceptional, highly treated effluent within the Chesapeake Bay watershed in accordance with a Virginia Pollutant Discharge Elimination System (VPDES) permit.

HRRSA remains committed to doing our fair share to restore the Bay. Our sustaining commitment to the Bay clean-up effort is exemplified by the North River WWTF's multi-million dollar enhanced nutrient removal (ENR) and expansion project which will be completed by the end of this year. With a total project budget of over \$90 million, HRRSA has expended considerable resources in ensuring a successful and timely completion of this extensive, three-year project. In addition to increased debt service on approximately \$64 million in new loans, the ENR project has also resulted in significantly higher operating and maintenance expenses resulting from dramatically increased energy requirements and additional chemical usage and solids production from operation of the new enhanced nutrient removal process. These additional costs have been borne by our member localities through increased rates to their customers.

HRRSA has significant concerns with EPA's Draft TMDL and strongly objects to the disproportionate share of EPA's threatened "backstop" actions that are unfairly directed at already highly regulated and controlled wastewater treatment facilities. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0263.1.001.007

Author Name: Foley Sharon

Organization: Harrisonburg-Rockingham Regional Sewer Authority (HRRSA)

EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs would destroy this foundation.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0266.1.001.001

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, Chesapeake Bay Total Maximum Daily Load (TMDL) regulatory proposal by the United States Environmental Protection Agency (EPA) raises serious concerns regarding the unattainable mandate and lack of parity represented in pollution load allocations for the State of New York compared to the other Bay states and watershed jurisdiction partners

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0266.1.001.005

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, EPA's proposed TMDL regulation imposes disproportionately heavier restrictions for water quality in New York in order to help the other Bay watershed states meet the overall TMDL goals, ignores New York's excellent record of environmental accomplishments over the past 25 years using state and local conservation efforts, and forces unrealistic costs on businesses, governments and residents within the watershed area;

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0266.1.001.010

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, the EPA TMDL will preclude future growth in the New York portion of the watershed in order for New York State to reach and maintain the EPA mandated nutrient and sediment allocations

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0266.1.001.011

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, elimination of all wastewater treatment plant discharges or even with the elimination of animal agriculture and utilizing every best management practice available in the watershed area, New York would still not be able to meet EPA's TMDL allocation

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0266.1.001.019

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

RESOLVED that the City of Binghamton requests that the New York State Legislature and New York State Governor Patterson publicly oppose the Chesapeake Bay TMDL load allocations for the State of New York

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0269.1.001.010

Author Name: Mixell John

Organization: Forbes Road School District

The Backstop provisions in the draft EPA TMDL for the Chesapeake Bay are severe and in some cases unachievable. The Backstop, if implemented, will create severe hardship on most of the residents and businesses in our community and beyond. The actions will likely be legally challenged and progress towards Chesapeake Bay goals will be further delayed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0271.1.001.002

Author Name: Harrison L.

Organization: South Central Wastewater Authority, Petersburg, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0271.1.001.004

Author Name: Harrison L.

Organization: South Central Wastewater Authority, Petersburg, Virginia

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations,

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0276.1.001.001

Author Name: Nale Regis

Organization: Hollidaysburg Sewer Authority, Hollidaysburg, Blair County, Pennsylvania

The Hollidaysburg Sewer Authority is located in Blair County, Pennsylvania and owns, operates and maintains a wastewater treatment plant that serves portions of four (4) townships as well as the entire Borough of Hollidaysburg. The plant is rated for 6 millions gallons per day. The Authority recently was re-issued its NPDES permit (PA #0043273) on September 27, 2010. That permit contains requirements to achieve annual cap loading limits of 111,513 pounds of total nitrogen (TN) and 14,612 pounds of total phosphorous (TP) beginning on October 1, 2012.

The Authority has completed its planning studies for achieving the above annual cap loading limits, which were part of the Commonwealth of Pennsylvania's Chesapeake Bay Tributary Strategy. Design of new plant facilities is currently in progress. In fact the Authority filed an application with PaDEP for a Part II Water Quality Management Permit for the construction of the proposed facilities on October 29, 2010.

To achieve compliance with the newly issued NPDES permit, the Authority was proposing to upgrade its main wastewater treatment process to provide enhanced TN removals, build new sludge management facilities and purchase TP credits long term. Current estimated construction cost of the project is \$8 million dollars. The Authority's sewer customers are facing a monthly increase in the fixed portion of their monthly sewer bill of at least \$5.00 per month just to cover the debt service on the anticipated construction loans. Increased operations and maintenance costs will add

even more to the monthly sewer bill.

Recently the U.S. EPA has proposed to institute "Backstop TMDL's" on municipal and industrial point source sewage treatment plants in the portions of Pennsylvania that are tributary to the Chesapeake Bay. The U.S. EPA assigned the Hollidaysburg plant the following "Backstop TMDL" limits:

Pollutant Parameter	Backstop TMDL	Resultant Average Concentration @ 6.0 mgd
Total Nitrogen (TN)	9,804 lbs/yr	0.53 mg/l
Total Phosphorous (TP)	350 lbs/yr	0.019 mg/l
Total Sediment (TS)	025823 mil/lbs/yr (25,823 lbs/yr)	1.4 mg/l

The resultant average concentrations at the design plant flow of 6 million gallons per day (6 mgd) are much lower than the U.S. EPA's own limits of current technology for TN and TP. Those limits of current technology are 3.0 mg/l and 0.1 mg/l for TN and TP respectively.

The proposed "Backup TMDL's" will require the Authority to construct additional treatment units to remove TN and TP down to the limits of current technology. Additionally to achieve compliance below those limits the Authority would likely then purchase TN and TP credits as needed. The additional costs to do this are unknown at this time but surely run into the millions of dollars to construct such facilities. Operations and maintenance costs increases would result as well.

The Authority is already facing increased O&M costs for wastewater treatment in 2011 due to the impending increases in electric and natural gas utility rates. These utilities are expected to increase in the 15-20% range. These utility rates will affect the Authority's residential, commercial and institutional users as well.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0276.1.001.003

Author Name: Nale Regis

Organization: Hollidaysburg Sewer Authority, Hollidaysburg, Blair County, Pennsylvania

The Authority believes it is in the public interest to allow the Commonwealth's Chesapeake Bay Tributary Strategy to be implemented and then to measure and assess the improvements to the Bay and its tributaries before embarking on further expenditures of public funds that may not have any impact whatsoever on the Bay and its water quality.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0281.1.001.001

Author Name: Hammes Dale

Organization: Loudoun Water

We own and operate a municipal water reclamation facility ("WRF") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We expect to do our part for the Bay restoration. Our Broad Run WRF has been designed with nutrient removal technology that will achieve our required waste load allocation through its five stage process that includes a membrane bioreactor. The facility, permitted at 11 mgd, was constructed at a cost of \$240 million including \$57 million in nutrient removal processes. The operational cost for this process is approximately \$4/1000 gallons which is four times the cost of the previous treatment cost. To help pay for these costs, Loudoun Water increased its rates by 12 percent last year and has plans in place to increase rates by an additional ten percent for each of the next two years.

We recognize the effort to continue to find ways to protect the Chesapeake Bay as a valuable resource, however we have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0284.1.001.002

Author Name: Shwed John

Organization: Town of Laurel, Delaware

Additionally, if the back stop EPA limits of 3.0 mg/l TN and 1.0 mg/l TP were imposed our task would become impossible to obtain without a significant increase in plant modification and operating cost even at the lower 700,000 gal per day flow rate. These limits are being set at or near the limit of technology and being so stringent they limit capacity needed for growth of our Town and what limited capacity that exist must be used for existing town limits. As you are aware there have been several upgraded wastewater treatment facilities in other states as well as Laurel who struggle to comply with ENR standards. We all struggle to consistently meet the ENR levels due various loading, operational, and weather variability.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0286.1.001.001

Author Name: Salisbury Galen

Organization: Chemung County Sewer Districts (CCSD)

I am writing to document my concerns and issues with the draft Chesapeake Bay Total Maximum Daily Load (TMDL) allocations that have been recently issued by the US Environmental Protection Agency (EPA). The Bay and its tributaries are indeed national treasures that have been negatively impacted by many years of environmental stresses and misuse and are beyond a reasonable doubt in need of significant attention. However I strongly feel that the draft TMDL allocations as presented by the EPA will not achieve the goal of cleaning up the Bay because they place unattainable pollution reductions on the New York and other headwater states. The listed TMDL allocation limits would require an extremely high financial expenditure that would jeopardize the economic well being of many of the headwater communities and may therefore not be achievable.

New York has been at the forefront of environmental issues, including water quality for many years and the New York State Department of Environmental Conservation has been an extremely active and forward-looking agency since the environmental awareness issues began in the early 1970's. New York began investing heavily early on in its' water and wastewater infrastructure systems throughout the state using money that came from federal, state and local tax dollars. The results of these investments is what we benefit from today and can be noted by the quality of the water that exists throughout New York, some of which makes its way to the Bay. In fact it is known that if the water quality of the entire Bay watershed had the same phosphorous, nitrogen and sediment concentrations that New York's portion of the watershed currently has, the Bay would not be impaired. New York should be recognized and credited for the investment it has made over the last 40 years in our water and not be punished with such a low allocation as appears in the draft TMDL. In essence, New Yorkers would be paying for another 30 years for that which they have already paid for over the past 40 years - clean water.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0286.1.001.003

Author Name: Salisbury Galen

Organization: Chemung County Sewer Districts (CCSD)

In conclusion, first the EPA should at a minimum approve the Watershed Implementation Plan (WIP) submitted by New York State and not impose the federal backstop values for nitrogen and phosphorous.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0288.1.001.006

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

Virginia's regulatory approach was developed beginning in 2005, with the agreement of a number of local government organizations including VAMWA and of the major citizen environmental groups. In 2005, the Virginia State Water Control Board ("SWCB" or "Board") adopted a package of stringent regulations; [FN6] in 2007, the SWCB adopted a related permitting regulation. These actions (listed below) established a comprehensive program for the (early) regulation of municipal dischargers (collectively, the "Virginia Regulations"):

--Water Quality Management Planning Regulation Amendments, 9VAC25-720

--Nutrient Enriched Waters Policy Amendments, 9VAC25-40-70

--Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820

These regulations were developed pursuant to a statute enacted in 2005 and codified at Virginia Code § 62.1-44.19:12 et seq.

Extensive deliberations and efforts went into the statewide effort to develop Virginia's regulatory wasteload allocations. The SWCB took final action based upon those considerations, and wastewater plants (including POTWs) across the Commonwealth made major investments based upon the Board's decision.

Based on the referenced statute and regulations of the SWCB, the Virginia Nutrient Credit Exchange Association, Inc. (the "Nutrient Exchange") was created, and the Nutrient Exchange and its participants have developed the Exchange Compliance Plan. [FN7] This represents the most extensive, proactive effort to plan and construct municipal wastewater treatment in Virginia since national requirement for secondary treatment established in the 1970s. The Compliance Plan addresses how participating facilities will achieve and maintain compliance with their regulatory nutrient allocations beginning January 1, 2011. VADEQ has approved the Nutrient Exchange's Compliance Plan each year beginning with the first such plan in 2007 through November 2010.[FN8]

The approved Exchange Compliance Plan is based on construction of a large number of advanced nutrient removal facilities throughout the five major river basins as well as a number of nutrient credit trades pursuant to the State Water Control Law's Chesapeake Bay Nutrient Credit Exchange Program article and the Board's Watershed General Permit. These trades are also contractual obligations of the participants through the complex, multi-party Nutrient Credit Services Agreement, which was executed by the parties in 2007.[FN9]

To help support this construction program and related nutrient credit trading, the General Assembly has appropriated over \$600 million in cost-share funding for treatment upgrades.[FN10] The projects are constructed by the facility owners, and the State cost-share funding is disbursed, in accordance with the terms and conditions of numerous individual Water Quality Improvement Fund Grant Agreements to which VADEQ is a party.[FN11] Virginia's POTWs have also made significant investments in facilities to reduce loadings based upon 2005 nutrient allocations. In sum, Virginia's POTWs have estimated total costs between \$1.5 billion and \$2.0 billion to upgrade POTWs to meet nutrient loading reduction requirements.

As a result of these many efforts by the Commonwealth and local governments, Virginia is in the fortunate position of

being able to testify in a recent congressional hearing to Virginia's remarkable progress, including the expectation of meeting its regulatory point source allocations by the December 31, 2010 deadline.[FN12] In his September 2009, testimony before the Subcommittee on Water Resources and the Environment of the House Committee on Transportation and Infrastructure, Virginia's Secretary of Natural Resources highlighted the State's financial participation and commended the Nutrient Exchange for its role in facilitating the nutrient upgrades.[FN13]

As noted above, EPA has previously agreed that regulatory stability should be a fundamental component of the Bay TMDL. Indeed, because of the significant investment made by local governments and the Commonwealth (as well as other Bay states), the EPA Regional Administrator publicly agreed that regulatory stability is a "priority need" and a "matter of fiduciary responsibility and public trust:"

"...the large scale public investments (estimated at over \$4 billion) that are now being carried out throughout the watershed to upgrade and reduce nutrient discharges from point sources. A stable regulatory environment is a priority need for these facilities and a matter of fiduciary responsibility and public trust. Therefore, EPA considers requiring further point source upgrades to the limits of technology as an option of last resort and is avoidable if the Bay partners use our creative energies to deliver sufficient nonpoint pollutant reduction commitments.[FN14]

In addition, the Office of Inspector General has also agreed that allocations for significant wastewater treatment facilities should remain unchanged:

Although EPA and its Bay partners could obtain additional nutrient reductions from significant municipal wastewater treatment facilities..., these additional reductions are not cost effective or practical. Obtaining these additional reductions would require justifying additional expenditures, recalculating wasteload allocations, and reopening and modifying permits already being put in place. At this point, EPA has no plans to require additional reductions from wastewater treatment facilities.[FN15]

Indeed, according to the latest Phase 5.3 model runs, wastewater represented 21 and 25 percent of the average annual nitrogen and phosphorus load, respectively, to the Chesapeake Bay under the 2009 progress scenario. Under the critical 3-year condition for the TMDL (1993-1995), wastewater would represent an even lower proportion of the nutrient load with existing controls.

Moreover, wastewater treatment plants lead all sectors in nutrient load reduction. For example, the estimated 2008 wastewater loads represent a 45-percent reduction from 1985 levels and a 62-percent reduction from "no action" levels. Wastewater treatment plants are still in the process of completing major upgrades and are the only sector predicted to achieve tributary strategy loads shortly after 2010. With current levels of nonpoint source controls, the wastewater cap loads will represent only about 15-percent of the average annual nitrogen load to the Bay, and even less under critical hydrologic conditions.

Although the wastewater sector is proud of its progress in nutrient load reduction, most treatment plants are allocated at close to limit-of-technology levels, and there is almost no benefit to further reductions in point source allocations. Non-point source reduction will remain the primary means to achieve the overall loading caps.

In contrast, the Susquehanna River basin alone contributes 44 percent of the total nitrogen load to the Bay. This value actually underestimates the impact of the Susquehanna basin, because it is among the most "effective" basins at

impacting hypoxia in the mainstem Bay. When relative effectiveness is considered, the Susquehanna River basin accounts for more than 60 percent of the "algal units" delivered to the Bay. Regardless of implementation actions in other basins, load reductions in the Susquehanna basin are the key to attaining water quality goals.

Despite the extraordinary efforts made by Virginia's POTWs, and EPA's own prior statements, EPA's Draft TMDL threatens to disrupt these very productive recent efforts.

EPA has concluded that Virginia's WIP fails to comply with EPA's July 1, 2010 and August 13, 2010 nutrient and sediment allocations[FN16] and does not adequately establish reasonable assurance. EPA has established what it is calling a "backstop allocation" in response.[FN17] This backstop is meant to "...reduce the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions' draft Phase I WIPs addressing nonpoint source reductions."[FN18]

Each of the Bay States received a "minor", "moderate", or "high" backstop depending upon EPA's view of how severely the state had missed the allocation targets and reasonable assurance mandate. Virginia received a "moderate" backstop to bridge the gap between EPA's expectations and the Virginia Draft WIP.[FN19] The "moderate" backstop sets wastewater discharge allocations based on concentrations of 4 milligrams per liter ("mg/l") for total nitrogen ("TN") and 0.3 mg/l for total phosphorus ("TP") and design flows (i.e., plant capacity).[FN20]

EPA also established what it calls "full" backstops for all Bay States. For wastewater, "full" backstops set allocations for nutrients based upon limits of technology (3 mg/l for TN and 0.1 mg/l for TP) and historical flows (2007 to 2009 averages) rather than design flows.[FN21] According to the Draft TMDL, EPA will use the "full" backstops "...in any of the seven watershed jurisdictions if EPA determines that a jurisdiction's final Phase I WIP is weaker than its draft Phase I WIP and requires additional backstop actions to ensure that point and nonpoint source reductions sufficient to meet WLAs and LAs are achieved and maintained". [FN22] VAMWA strongly opposes the use of either "moderate" or "full" backstops in Virginia.

[FN6] For reference see September 12, 2005 and November 4, 2005 Memoranda from DEQ to SWCB (attached hereto as Appendix 5) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A5].

[FN7] Attached hereto as Appendix 6. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A6]

[FN8] VADEQ's approval letters are attached hereto as Appendix 7. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A7],

[FN9] See Appendix 6. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A6],

[FN10] Fifty-five (55) POTWs have signed grant agreements with the Commonwealth for partial grant funding for upgrades. In sum, these grant agreements represent an invest by the Commonwealth of approximately \$648.23 million. Despite the commitment made by Virginia and local governments (for the balance of the approximately \$2 billion effort), Virginia's program is facing significant funding shortfalls. Virginia is projecting a shortfall in funding of approximately

\$112 million by July 2011, and has begun pro-rated payments in an effort to shore up the Water Quality Improvement Fund budget.

[FN11] A sample agreement is attached hereto as Appendix 8. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A8]

[FN12] In addition to strides made in Virginia, Baywide, the wastewater source sector was well on its way to achieving a significant percentage of their ultimate clean-up goals by 2005. As a presentation from the Chesapeake Bay Program Office ("CBPO") shows (pertinent page attached as Appendix 9) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A9], wastewater (both municipal and industrial) had achieved 63% of the nitrogen reduction goal (loadings reduced by 30.4 million pounds per year from 1985-2004) and 80% of the phosphorous reduction goal (loadings reduced by 4.9 million pounds per year from 1985-2004).

[FN13] Former Secretary of Natural Resources Preston L. Bryant's written comments are attached hereto as Appendix 10. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A10]

[FN14] Letter dated Sept. 11, 2008, from Donald S. Welsh, EPA Region III, to John Griffin, Maryland DRN, Enclosure A at 4 (attached hereto as Appendix 11). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A11]

[FN15] 2008 EPA Office of Inspector General's Report (08-P-0049) (attached hereto as Appendix 12). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A12]

[FN16] EPA's letters to Virginia Secretary of Natural Resources Doug Domenech establishing nutrient and sediment allocations are attached hereto as Appendix 13. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A13]

[FN17] Draft TMDL at 8-9.

[FN18] Draft TMDL at 8-9.

[FN19] Draft TMDL at 8-19.

[FN20] Draft TMDL at 8-11.

[FN21] Allocations for sediment also appear to be very stringent under the "full" backstop. For description of the "full" backstop see Draft TMDL at 8-11; for allocations see Appendix Q-2 (Full Backstop; Annual Loads).

[FN22] Draft TMDL at 8-17.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0298.2.001.024

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

The EPA's own calculations and charts show that the James River has a minimal affect on Bay water quality. Thus, the most rigid of the TMDLs is placed on the body of water that has the least impact on the bay. The James River TMDLs are an example of the EPA overreaching its authority as to the Bay clean-up project.

Response

Please see the response to comment 0293.1.001.017 for more information on the James River allocations.

EPA reminds the commenter that EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Comment ID 0300.1.001.014

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

Table 9-3 of the draft TMDL provides preliminary WLAs that are aggregated for the source sectors. VDOT understands that the Phase II WIP and revised TMDL will refine the WLAs by stream shed, but that the WLAs will still be aggregated among many parties. In order to avoid potential legal problems, VDOT requests that the EPA and relevant state agencies establish the guidelines that would be used to segregate WLAs among the different parties should that become necessary in the future.

Response

EPA agrees that guidelines are necessary to describe how sector aggregate WLAs should be distributed to permittees included in that aggregate. However, EPA believes that these guidelines should be developed by each jurisdiction and included in the Phase I and II WIPs.

Comment ID 0300.1.001.017

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

VDOT is concerned that the proposed revisions to the NPDES construction general permit would require aggressive controls for nutrient removal, which heretofore have not been required. Erosion and sediment controls at construction sites have been designed to prevent/control sediment runoff primarily through perimeter and temporary controls. If specific target reductions are required for phosphorus and nitrogen removal, then the erosion and sediment controls would need to be much more comprehensive and would need extended detention, infiltration, or bio-retention management that is typical of permanent stormwater management facilities used for nutrient removal. This change in regulatory standards would result in a significant cost increase for treatment. For example, Virginia's 2005 Tributary Strategy Plan estimated the cost of traditional BMPs for erosion and sediment control to be about \$2,000 per acre treated with a maintenance cost of approximately \$500. This compares with the estimated costs for an infiltration BMP of approximately \$5,285 per acre treated with a maintenance cost of \$528 and a filtering BMP cost of approximately \$12,719 per acre treated with a maintenance cost of \$763. Given this 300-600 percent difference in treatment costs, VDOT requests that EPA reconsider this proposed revision to the NPDES construction general permit program and allow the focus of erosion and sediment controls to remain on erosion prevention and sediment removal.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0302.1.001.007

Author Name: Williams Nat

Organization: The Nature Conservancy

We commend EPA for incorporating the following elements into the TMDL and accountability framework:

4. Providing necessary federal backstop actions but seeking to avoid reliance on such an approach. Unfortunately, the history of Bay restoration efforts demonstrates that there are so many players involved that success is unlikely unless one entity with sufficient enforcement authority ultimately takes the lead. The Conservancy hopes that many of the federal backstop actions EPA has outlined will prove unnecessary, and we know you share this sentiment. We do commend EPA, however, for clearly laying out the consequences if states and other jurisdictions fail to achieve pollution reductions through their own plans.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0303.1.001.001

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

We own and operate a municipal wastewater treatment plant ("WWTP") in the York River Basin that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0303.1.001.003

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources, especially in a nonpoint source dominated system like the York River basin. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations,

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0314.001.007

Author Name: Santulli Thomas

Organization: Southern Tier Central Regional Planning and Development Board (STCRPDB)

If the final TMDL is to succeed in achieving actual restoration of the Chesapeake Bay, the allocations must be revised to be both equitable and theoretically achievable .

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0315.001.001

Author Name: Scott Edward

Organization: Commonwealth of Virginia

Through the tributary strategies, Virginia is committed to significant additional reductions in nitrogen, phosphorus, and sediment pollution going forward. My review of data from the Chesapeake Bay Commission shows that in many cases the tributary strategies are essentially equivalent to the draft allocations proposed by EPA, and are in some cases lower. With this framework in place, EPA's haste to act and public disparagement of Virginia's Watershed Implementation Plan are puzzling.

Response

Tributary Strategies were developed by each jurisdiction to implement nitrogen, phosphorus, and sediment cap loads established by the Bay partners in 2003 to protect the Bay. However, this effort was intended to guide nutrient and sediment reductions up to 2010 and was not intended to satisfy EPA's TMDL obligations under the Clean Water Act. Furthermore, the Bay models have been updated with the latest science and monitoring data. The Bay TMDL used these updated models to establish revised nitrogen, phosphorus, and sediment loading requirements used by the jurisdictions to develop Phase I Watershed Implementation Plans (WIPs). Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. The WIPs are part of the accountability framework outlined in the Chesapeake Bay Protection and Restoration Executive Order 13508. The WIPs help ensure implementation of the Chesapeake Bay TMDL but are not an approvable part of the TMDL.

Regarding your comment that the TMDL development process was rushed, please see the response to comment 0137.1.001.004.

Comment ID 0319.1.001.011

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

In conclusion, Smurfit-Stone recommends that EPA modify the Proposed TMDL to address the significant issues raised by the company, VMA and AF&PA, and prevent unintended consequences by:

--Addressing Municipal treatment systems that receive a significant proportion of industrial wastewater in a different manner than other municipal treatment facilities in recognition of the difficulties of treating many industrial wastewaters.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0321.1.001.002

Author Name: Fanfoni Kenneth

Organization: Augusta County Service Authority, Verona, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against

WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0324.1.001.001

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

We own and operate a municipal wastewater treatment plant ("WWTP") in the Rappahannock River Basin that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We expect to do our part for the Bay restoration. In fact, our WWTP is in the process of being upgraded with nutrient removal technology. We are constructing a 5 Stage Bardenpho treatment plant at a capital cost of over \$16,000,000. As a result we recently implemented a 55% rate increase for the users of this system which was difficult in the present economic downturn. Further, we anticipate our annual O&M costs increasing by a significant amount over what we have historically spent. A major portion of this increase is related to adding staff, chemical and electrical costs associated with this type of treatment plant. Not only will we need to add several more operators, we expect to use considerable more chemicals and electric in order to achieve the required nutrient removal.

We have significant concerns with EPA's Draft TMDL and object to EPA's threatened "backstop" actions against WWTPs. EPA currently proposes to cut Virginia's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0331.1.001.006

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

Although the proposed backstop allocations reflect the difficulty of achieving significant load reductions from the

agriculture and onsite septic sectors, they fall far short of reflecting the difficulty of achieving such reductions from the urban runoff sector. EPA appears to simply assume that the reductions can be achieved because MS4s are subject to federal and state permitting authority under the NPDES, but this assumption fails to recognize that the Localities own, on average, only about 20 percent of the land area within their respective jurisdictions. Therefore, most of the retrofits needed to achieve the load reductions will have to be implemented on private lands over which the Localities have no control in the absence of new development or redevelopment requiring local land use approvals. As previously noted, the costs of land acquisition alone will be enormous.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0331.1.001.008

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

Stormwater management in the City is also hampered by the difficulty of infiltration in some areas where extensive clay soils prevent or retard infiltration, and by the very high groundwater table, which is a problem almost everywhere in the City's Chesapeake Bay Watershed. The topography of the City is very flat and there is an extensive tidal influence, thus making retrofits a costly option. If the EPA backstops remain, the City could retrofit all of its property, and still not meet the required allocation. Further, the use of multiple treatment options to meet the EPA's desired efficiencies will increase the amount of land required for retrofitting in the portion of the City that is already fully developed. As a result, the City will be forced to acquire private property interests to allow it to retrofit to a level that would meet the EPA's allocation.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the

methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0331.1.001.017

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

THE FLAWS AND UNCERTAINTY IN EPA'S MODELED PREDICTIONS DO NOT JUSTIFY JAMES RIVER ALLOCATIONS MORE STRINGENT THAN THOSE ESTABLISHED IN THE 2005 TRIBUTARY STRATEGY

A. In the absence of an accurately calibrated CBWM, verifiable model inputs, and predictions within an acceptable range of uncertainty, EPA should establish the allocations for the James River watershed in the TMDLs based upon the James River Tributary Strategy.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0331.1.001.020

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

THE FLAWS AND UNCERTAINTY IN EPA'S MODELED PREDICTIONS DO NOT JUSTIFY JAMES RIVER ALLOCATIONS MORE STRINGENT THAN THOSE ESTABLISHED IN THE 2005 TRIBUTARY STRATEGY

8. The EPA's own calculations and charts show that the James River has a minimal affect on Bay water quality. Thus, the most rigid of the TMDLs is placed on the body of water that has the least impact on the Bay. The James River TMDLs are an example of the EPA overreaching its authority as to the Bay clean-up project.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0335-cp.001.006

Author Name: Halprin William

Organization: Tidewater Builders Association (TBA)

We question the wisdom and authority of the EPA to mandate that private owners reduce or retrofit their property's impervious surfaces. We urge the EPA to seek other less expensive and less intrusive solutions to the clean up of the Bay and its tributaries.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0340.1.001.003

Author Name: Miner Steven

Organization: Accomack County, Virginia

The EPA's backstop TMDLs are stringent actions, especially for waste water treatment plants associated with municipalities and food processing plants. The EPA is avoiding the same actions on deficiencies in non point sources, agricultural lands, saying that the states should regulate these, and any actions should be through the Farm Bill. While both Agriculture and waste water treatment plants associated with food processing have responsibility for the protection of water quality, EPA's "back-stop" TMDL's should not penalize waste water treatment plants and other point source discharges in our community due to the failure of the State and the Federal Farm bill to appropriate sufficient technical

or financial resources to address the non-point source issue, especially if the local government has limited authority to directly address the non-point sources of water pollution.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0342.1.001.001

Author Name: Levine Thomas

Organization: Moshannon Valley Joint Sewer Authority

On behalf of the Moshannon Valley Joint Sewer Authority (hereinafter "Authority") and in response to the presentation by your staff at the public hearing on October 19, 2010 at the State College Knights of Columbus on Stratford Drive, I present herein my comments on the Draft Chesapeake Bay TMDL's, dated September 22, 2010.

The Authority is currently designing the improvements to their Regional Water Pollution Control Facility (hereinafter "Plant") anticipated to cost \$14.7 million. This project is being implemented because of the Chesapeake Bay Tributary Strategy biological nutrient limits being imposed upon the Authority through its "draft" NPDES permit.

The proposed backstop biological nutrient removal limits of 3 mg/l for Nitrogen and 0.1 mg/l for Phosphorus will require the Authority to add approximately \$7 million to the already expensive project. The Authority is opposed to these backstop limits.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0342.1.001.005

Author Name: Levine Thomas

Organization: Moshannon Valley Joint Sewer Authority

The Authority also recommends that only the non-point sources not be included in the backstop. The non-point sources are responsible for the majority of the nutrient and sediment load to the Chesapeake Bay and should start to carry their share of the "pollution diet".

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0354.1.001.004

Author Name: Fickbohm Scott

Organization: Otsego County Soil and Water Conservation District

It's from this perspective that we view the proposed reductions for New York (XX% TN, XX% TP and XX%TSS) as surprising, unrealistic and disappointing; surprising because the proposal is not reflective of an understanding of the role of headwaters in watershed dynamics; unrealistic given the highly unfavorable cost benefit ratio and its long term negative impact to the region; and disappointing because it was the result of a human decision making process.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0361.1.001.003

Author Name: Weidenbach Richard

Organization: Delaware County Soil and Water Conservation District (SWCD), New York

EPA is acting punitively in assigning the proposed TMDL values to New York State. In 2000, New York State's Governor and the 16 Conservation Districts in the Susquehanna watershed signed onto a multi-state agreement to voluntarily reduce its nutrient and sediment loading from the New York portion of the watershed. We have successfully worked hard with our agricultural community to reduce this loading, yet EPA has not credited New York for its reductions. At one public forum sponsored by the Upper Susquehanna Coalition of Soil and Water Conservation Districts, EPA's TMDL Manager inferred that crediting New York State for all its past loading reductions would be "politically uncomfortable" for EPA. We find it appalling that a federal agency that should be acting scientifically is "knee deep" in regional politics. EPA's conclusion not to credit New York State for its reductions, while other states did not or even increased their loading, is punitive. In fact, it sends a clear message to other regions around this country that are facing the possibility of a TMDL to continue to pollute until a regulatory action is taken. This disincentive approach by EPA threatens to undermine the many voluntary proactive approaches to pollution reductions that have been successful in many regions throughout the nation. We strongly suggest that EPA rethink its regulatory mindset to include reward and encouragement of voluntary efforts that achieve the same water quality objectives.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0370-cp.001.002

Author Name: Page T.

Organization:

o The pollutant allocations in the WIP for the urban/suburban and all other sectors should be returned to the levels recommended by the Secretary's Stakeholders Advisory Group (SAG). The revised WIP should restore equity to the allocations as recommended by the SAG which already require significant reductions for all sectors except Wastewater Treatment Plants (WTPs).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0370-cp.001.004

Author Name: Page T.

Organization:

o The Virginia WIP submitted to EPA in September fails to take into account cost-effectiveness. Urge Virginia to use available data to take it into account in their revised WIP. The draft WIP unfairly shifts additional burdens onto the urban/suburban, on-site septic and agriculture sectors while reducing the contribution from WTPs to virtually no increase going forward. The BMPs required by the urban suburban sector to meet this shift are documented by Mike Rolband to be more than 10 times more expensive than available WTP technologies that could be phased-in with EPA approval over the full 15 year TMDL implementation period.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0370-cp.001.005

Author Name: Page T.

Organization:

o The additional allocations required by the draft TMDL after returning to the equitable distribution recommended by the SAG should be met through WTPs. The urban/suburban sector will have to pay these WTP costs as well but at far less cost than requiring urban retrofits beyond the levels already included in the SAG WIP. The greatest burden of this requirement for additional urban retrofits will fall on VDOT and therefore the state itself.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0378.1.001.010

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

5. The path forward must be positive, not punitive. Industry, municipalities, and the public can only support a watershed implementation approach that fairly distributes responsibilities - where all contribute to the solution, and with actions that are reasonable and cost-effective.

Throwing out the Pennsylvania WIP to impose a Backstop TMDL containing impossible and draconian mandates on December 31, 2010 will not achieve anything other than to create a train wreck. Such a track is not a viable pathway to achieve real Bay improvements. As our region and nation struggle to come out of the greatest economic downturn since the crash of 1929, now is not the time to waste time, taxpayer funds, and private resources - and it is not the time to take regulatory decisions that threaten to shut down industrial plants and displace employment.

We believe the Pennsylvania WIP is generally on the right track. To the extent that implementation steps and programs for certain non-point sectors need to be fleshed out in further detail, EPA must give the Commonwealth sufficient time to work out those details.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0379.1.001.002

Author Name: Shields Wyatt

Organization: City of Falls Church, Virginia

While the Draft WIP lacks clarity on what the exact requirements would be for urban and suburban stormwater, EPA's Draft TMDL defines an aggressive backstop allocation of retrofitting 50% of impervious land. The backstop is a primary concern given its tremendous potential to become the centerpiece of our Virginia Pollutant Discharge Elimination System General Permit for Small Municipal Separate Storm Sewer System ("MS4") and primary driver of expenditures in stormwater management for the next 15 years.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0382-cp.001.007

Author Name: Combs Tina

Organization: Chamber of Commerce, Martinsburg and Berkeley County, West Virginia

As a result, EPA has imposed stricter limits upon the regulated wastewater treatment plants. The imposed limits correspond to EPA's maximum theoretical load reduction, or "E3" scenario: assuming the best case and that all available control technologies are deployed and represented at the highest technologically achievable levels of treatment, regardless of costs. This scenario would lead to more onerous rates for wastewater customers and leave even less opportunity for future growth in Berkeley County. These backstop limits must be removed.

In summary, Berkeley County is prepared to do its "fair share" of nutrient reduction in order to improve local water quality and the Bay; however, the "fair share" needs to be grounded in sound science with an approach that will not unduly burden citizens and will allow Berkeley County to recognize its growth potential in the future. Thank you for your consideration of our comments.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0387.1.001.002

Author Name: Crabtree Carol

Organization: Eastern Panhandle Regional Planning and Development Council, Region 9 (RPDC)

The following are comments submitted to me from Jefferson County Commissioner, Lyn Wildmyer, Region 9 Chesapeake Committee Chair:

"We state in the strongest terms that EPA should recognize and continue longstanding DEP target standards of 5 mg/L TN and .5 mg/L TP rather than impose more restrictive standards of .3 and .1. The proposed federal "backstop" standards are fiscally devastating and from a clean water perspective, unnecessarily stringent.

The state of West Virginia has been working for years through its stream restoration program using the 5/.5 standards. It is unreasonable and unrealistic to impose more stringent standards now. We understand from the meeting we have attended on the TMDL that the "backstop" standards are the "gold-plated" maximum achievable goals given cutting edge technology and state of the art treatment plants."

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0390-cp.001.010

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

The Backstop provisions in the draft EPA TMDL for the Chesapeake Bay are severe and in some cases unachievable. The Backstop, if implemented, will create severe hardship on most of the residents and businesses in our community and beyond. The actions will likely be legally challenged and progress towards Chesapeake Bay goals will be further delayed.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water

quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0399.001.005

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, New York State is responsible for only 4% of the discharge to the Bay, and the EPA proposal requires New York State to remove 60% of its discharge, and

WHEREAS, only 44% of New York State discharge is deposited in the Bay, and under the proposed EPA limits, New York State must remove two pounds of material to receive credit for one pound

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0399.001.008

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, the EPA's proposed TMDL regulation imposes disproportionately heavier restrictions for water quality in New York in order to help other states meet their overall TMDL goal, while ignoring New York's excellent record of environmental accomplishments over the past 25 years, and

WHEREAS, the EPA's proposed TMDL regulation will require using State and Local conservation efforts and force unrealistic costs on the businesses, governments and residents within the Watershed area; and

WHEREAS, even if the other states achieve their EPA mandated allocations by 2025, their water would still contain higher nutrient loads per acre than New York's current 2010 load per acre

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0399.001.012

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, the TMDL allocations imposed by EPA are unachievable, are beyond the existing technology, and there is no scientific evidence that the high level backstops dictated by EPA can be achieved in the climate in New York State; and

WHEREAS, even with the elimination of animal agriculture and utilizing every best management practice available in the Watershed area, New York would still not be able to meet EPA's TMDL allocation

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0399.001.017

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, and the EPA allocations are unachievable therefore it is arbitrary, capricious and contrary to law for EPA to impose and for any state to enforce such TMDL allocations

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0402.001.005

Author Name: Campaign Mass

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fifth : We have demonstrated our ability to work with state and local agencies to improve water quality . Many of our farms already have permits from various state agencies. We hope control of the plan and all regulations will be managed at the state level .

Response

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all stakeholders involved including federal agencies and state and local jurisdictions. EPA encourages all stakeholders to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its stakeholders and jurisdictional partners in order to achieve this.

Comment ID 0407.1.001.003

Author Name: Krouskop Dirk

Organization: MeadWestvaco Corporation (MWV)

MWV is a member on the Virginia Nutrient Credit Exchange Program. The Nutrient Credit Exchange Program established in Virginia was developed in reliance on the long-standing expectation that investments in technology would achieve the desired nutrient reductions. The 5 mg/l TSS (sediment) limitations proposed in EPA's partial and full backstop proposals undermines this process because technologies other than those pursued to date for nutrient reductions would be required. EPA's proposal, in effect, makes TSS the driver for technology investments rather than nitrogen and phosphorus. This is a marked shift in the program that undermines the investments and nutrient trading program established under Virginia's regulatory trading program.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0408-cp.001.001

Author Name: Koon Teresa

Organization: West Virginia Department of Environmental Protection and West Virginia Department Agriculture

It is difficult for West Virginia to comment on the TMDL as we do not currently have a clear understanding of where we stand related to a working scenario that meets West Virginia's allocation. Over the past year, West Virginia has consistently expressed our concerns with many of the decisions and outcomes related to the development of the

Chesapeake Bay TMDL. Our technical concerns are well known by EPA, however, we feel the need to provide formal comment and adamantly oppose the imposition by EPA of the backstop TMDL as outlined in the draft TMDL for the following reasons.

Response

Please refer to the response for comment 0229.1.001.005.

Comment ID 0410.1.001.001

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Backstop measures. Are these mandatory measures or will they only be employed if the 2017 goals are not achieved?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0416.1.001.003

Author Name: Paulson Eric

Organization: Virginia State Dairyman's Association (VSDA)

VSDA is also alarmed at the inclusion of federal backstops in the proposed TMDL plan. This targets and punishes larger operations for no other reason than they are under EPA jurisdiction. A more reasonable approach is to work with Virginia's current incentive based system to help operations of all sizes work towards a common goal. CAFO's in Virginia already work under stringent federal and state guidelines and further regulations will only add more costs to the operation. Instead of overreaching their authority, we also urge EPA to work with Virginia on programs such as the Virginia Pollution Abatement program that are often more stringent than federal CAFO permits and are highly effective. Moving more operations under federal permits would create unnecessary paperwork and have little impact on water quality.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which

EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. It will be a challenge to meet the 2025 deadline but EPA is committed to work with its jurisdictional partners in order to achieve this.

Comment ID 0419.1.001.002

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

Table 3 shows the percent change between EPA's "2010 No Action" and EPA's backstop allocation scenarios. It appears that EPA used the agricultural source sector to balance the load reductions to meet the James River basin TMDL allocations, because the TN edge of stream loads increased by 12 percent while the sediment loads decreased by 50 percent. Therefore, if EPA continues to apply backstop allocations, loads to compensate for the CS-C WLAs that EPA missed in the draft TMDL should come from the agricultural source sector, which should not harm agriculture. Agricultural BMPs that target sediment reductions will most likely reduce nitrogen and phosphorus loads as well. EPA should evaluate the expected performance of the agricultural BMPs and identify the nitrogen and phosphorus loads that could be used to offset the allocations for the CS-C WLA, which should be incorporated into the final TMDL. An example of these calculations is shown in Exhibit C. [Comment Letter contains additional information in the form of an attachment. Please refer to Exhibit C of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)].

Table 3 - Percent Change between 2010 No Action and EPA's Backstop Allocation [Please see page 11 of original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0434.1.001.017

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

C. EPA Has Not Provided Sufficient Evidence of the Environmental Benefits to be Achieved through Its Proposed Backstops.

EPA has not provided any evidence that the partial and full backstop scenarios in its TMDL are necessary to achieve an environmental benefit. Moreover, EPA's proposal overlooks significant programs included in Virginia's WIP that would result in significant water quality improvements.

For example, the following agricultural practices, included in Virginia's WIP, given proper implementation and funding, will result in significant water quality improvements. The development of Agricultural Resource Management or Conservation Plans to meet the individual conservation needs of each farm will result in progress without mandating a "one-size-fits-all approach." Likewise, the use of nutrient management plans encourages individualized management plans that are designed to reduce nutrient and sediment discharges.

Virginia's WIP proposes to build off of the incentive-based practices and programs that have already shown significant progress. EPA has not provided any evidence that it needs to intervene in this process and substitute its version of heavy-handed, government regulation.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Comment ID 0439.1.001.006

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

New York's WIP was developed by partners in natural resource management - USC, DEC, Ag and Markets, NRCS, Cornell University, and various other stakeholders. A realistic approach was used based on current water quality, proactive programs already in place, and funding sources, which are limited. New York's WIP proposed spending \$200 million in technical and financial assistance by 2025. The EPA nutrient and sediment allocations and backstop mandates are unattainable and extremely costly with minimal nutrient reduction benefits and minimal impact on water quality in the Bay.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by

the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0440.1.001.007

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

1.) Fiscal and economic impacts upon local governments

Unlike EPA, local governments have a fiduciary responsibility to the citizens they serve to seek the most cost-effective solutions available. EPA's refusal to engage in frank discussions about economic impacts is a disservice to the public. Instead of representing a healthy, collaborative partnership, the Chesapeake Bay DRAFT TMDL is more reflective of a "command and control" model demanding an "E3" ("everything done by everybody everywhere") approach that is highly unrealistic, prohibitively expensive, and undermines the regulatory stability needed for the proper management of wastewater facilities. Furthermore, representatives from EPA have stated in public meetings with stakeholders in Virginia that EPA will not consider economic impacts, affordability or cost effectiveness as part of the process for developing a TMDL.

Characteristic of EPA's aggressive approach is the employment of "backstop allocations." EPA's establishment of backstop allocations will place local governments in an extremely difficult and unfair position. Local governments will be penalized if they fail to achieve pollutant reductions from multiple sources that they have not historically been responsible for regulating, nor had the legal authority to control. One chief area of concern is storm water retrofits, where local governments would be held responsible for correcting design flaws in storm water systems that have been constructed over the past century or longer. While VACo concurs that upgrades to many of these systems throughout Virginia may be desirable for improving water quality and often necessary to address flood control problems, EPA's timetable for requiring them is highly unrealistic and a potential source for extreme fiscal stress upon localities throughout Virginia. For example, the consulting and engineering firm CDM, has estimated that the cost associated with urban storm water retrofits in the Virginia portion of Chesapeake Bay watershed will range between \$678 and \$1,717 per household per year until 2025.

Recently, two independent consulting firms completed studies estimating that the annual cost for construction associated with storm water retrofits in Fairfax County, Virginia alone would amount to \$250 million, or more. Currently, Fairfax County finances its storm water system through a dedicated real estate tax of \$.015 per \$100 in assessed value of real property. This translates to an average of about \$70 per year per residential unit. A \$250 million annual cost for storm water retrofits in Fairfax County under the DRAFT TMDL translates to an annual increase in the yearly storm

water assessment from \$70 to \$630 per household.

Estimates for Fairfax County are consistent with analyses that have been conducted in other parts of Virginia. For example, an analysis conducted by the Hampton Roads Planning District Commission in the southeastern region of Virginia (HRPDC) has estimated that per capita costs on an annual basis would range between \$284 and \$658 in its 12-member jurisdictions. Please see the table showing anticipated BMP costs and annual per capita costs for each HRPDC locality:

[Table. Please see page 5 of the original letter (Docket ID 0736-0440.10)]

Even in times of robust economic growth, the economic impacts of this magnitude upon local governments and taxpayers in Virginia would be unsustainable. Under current economic circumstances, these impacts are especially damaging. Please consider these realities under which Virginia's local governments have operated in recent years:

- Because of the state's fiscal conditions, state aid to localities has fallen by \$1 billion since 2008.
- These cuts in state aid have affected the resources dedicated to the funding of our public schools, mental health programs, social services and public safety.
- The fiscal conditions of recent years have forced many local governments in Virginia to cut back services and their workforces.
- Between June, 2009 and June, 2010, 15,600 local government jobs in Virginia disappeared.

For at least the next few years, Virginia's local governments are likely to operate under similar economic conditions. These points, however, are not being made to suggest that local governments do not have responsibilities, and should not be active partners in improving water quality. VACo's chief contention is this: there is a major role that federal and state governments must play in providing meaningful financial assistance to local governments if Chesapeake Bay restoration efforts are to succeed. To achieve the water quality goals established by EPA, federal and state agencies must also be partners in helping local governments find the most cost-effective approaches possible.

Recommendation:

Establish a high-level forum similar to the 2004 Chesapeake Bay Watershed Blue Ribbon Panel for analysis of fiscal and economic impacts and negotiations among Bay Partners on how financial responsibilities should be shared. This Blue Ribbon Panel was composed of 15 distinguished leaders from the private sector, government and the environmental community and chaired by former Governor Gerald Baliles. It was established by the Chesapeake Bay Executive Council "to identify funding sources sufficient to implement basinwide clean-up plans" to restore water quality in the Chesapeake Bay.

One chief criticism by the Panel was that past efforts to restore Chesapeake Bay were "poorly coordinated" partly because of their lack of "a permanent funding base that is sufficiently large to do the job" (Please see Saving a National Treasure: Financing the Cleanup of the Chesapeake Bay, A Report to the Chesapeake Executive Council from the Chesapeake Bay Watershed Blue Ribbon Panel, October 2004). To correct these major deficiencies, both in the areas of funding and coordination, the Panel recommended the establishment of a \$15 billion interstate Chesapeake Bay Financing Authority; \$12 billion of which would be capitalized through federal appropriations, with the remaining \$3 billion contributed by the states in the Chesapeake Bay watershed and the District of Columbia. Unfortunately, the

Panel's recommendations were quickly and summarily dismissed and now seem largely forgotten.

The imperative for federal leadership in assuming a greater share of financial responsibility was underscored in 2004 when the Chesapeake Bay Watershed Blue Ribbon Advisory Panel issued a report stating that the "most up-to-date cost of implementing all strategies (associated with restoring the Chesapeake Bay) is \$28 billion in total upfront capital costs, including some items that are primarily for the benefit to local waters, and not the Bay itself." If the Chesapeake Bay is truly regarded as the "national treasure" as characterized in President Barack H. Obama's Executive Order 13508, the Blue Ribbon Panel's recommendations must be resurrected for serious consideration. As the Panel's recommendations are reconsidered, there must also be updated analysis of full program costs that take into consideration changes in economic conditions that have transpired over the past six years.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to comment 0733.001.005 for EPA's consideration of the Blue Ribbon Panel's recommendations.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0442.1.001.010

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

8. EPA Needs to Build Flexibility into its Backstopping Approach

Given the limited time available for states to revise their WIPs in response to public comment, it is unrealistic to expect that states will be able to address all of the potential gaps in their WIPs that EPA has identified. Accordingly, the use of federal backstopping actions to revise the allocations should be delayed. EPA also should allow sufficient time for initiatives that address gaps to actually be implemented at the state level (e.g., state legislatures cannot approve programs and funding initiatives to assist local governments by December 31, 2010) before imposing backstops (ref. Section 8.3 Draft Backstop Allocations).

Recommendation #8A: Refrain from Imposing Backstop Provisions before the Phase II WIPs are Completed or if Other Regulatory Measures Aren't Completed In Time

EPA should refrain from issuing any backstop requirements until the Phase II WIPs are completed and approved; backstops addressing retrofit requirements for MS4 permittees should be contingent on the availability of appropriate cost-share funding assistance. (See comment #2.) In addition, if expected reductions in Clean Air Act measures are not

implemented as envisioned (ref. Section 4.7.2 Atmospheric Deposition, and Section 5.9.3 Atmospheric Loads) it would not be appropriate for EPA to automatically impose backstop measures to compensate for those gaps - especially given EPA's stated commitment to ensure those air reduction goals are met.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0443.2.001.003

Author Name: Moore Shannon

Organization: Frederick County Government

The County provides the following comments on the Executive Summary of the TMDL:

p.6: "If a jurisdiction's plans are inadequate or its progress is insufficient, EPA can invoke a suite of backstop actions to ensure pollution reductions. These include expanding coverage of NPDES permits to sources that are currently unregulated, increasing oversight of state-issued NPDES permits, requiring additional pollution reductions from point sources such as wastewater treatment plants, increasing federal enforcement and compliance in the watershed, prohibiting new or expanded pollution discharges, redirecting EPA grants, and revising water quality standards to better protect local and downstream waters."

- None of these actions addresses inadequate resources on the part of local governments. EPA has a plan to punish local governments for not meeting TMDL requirements without assurance that meeting such requirements is even possible. This potentially puts Frederick County in a terrible position where it would be subject to enforcement and legal actions even with the best of efforts.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0448-cp.001.003

Author Name: Repman L.

Organization:

In addition to oil and gas companies, factories and other businesses should have proper regulations. It is not enough to just enforce agriculture and wastewater, and other local/state/federal facilities. Businesses do not deserve an exemption, especially not because of money.

Response

Please refer to the response for comment 0246.1.001.004.

Comment ID 0463.1.001.004

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

4. Retrofits for Urban Stormwater

Chapter 8 provides Draft Backstop Measures which relies only on retrofits with respect to urban stormwater. The City has implemented some retrofits for municipal properties, as well as enhanced riparian buffers, using local Fee in Lieu monies. However, the City does not have the regulatory authority or the financial resources to implement the level of retrofits in the Draft TMDL, nor the level of retrofits in the states September 24, 2010 Technical Correction to Virginia's Draft WIP.

EPA's evaluation of Virginia's Draft WIP (Section 8) was not predicated on the subsequent WIP Technical Corrections submitted the same day as the Draft TMDL (September 24, 2010); therefore we do not know if these will be accepted in lieu of the Moderate Backstop measures. It is estimated that EPA's Backstop allocation will cost the City between \$10 - \$30m per year in retrofit costs alone. Additional retrofit costs will include securing easements/land acquisition and maintenance. In these austere times, funding is not available at the local level for this program. Meeting this level of retrofits will require Federal and state assistance.

Additionally, the cost of structural BMPs in urban areas will be disproportionately more expensive for infill projects given the price of urban land in the metro area. This will increase sprawl and not promote the type of Smart Growth development we are encouraging. EPA's Moderate Backstop (Draft TMDL Section 8) calls for 50% "impervious cover reductions" through "capture of rainwater for reuse". Reuse practices in dense, urban settings can not be accomplished wholly through outdoor reuse, which means grey-water systems will be required and costs will skyrocket beyond the above figure into the \$50m/yr. The Federal Backstop requirement calling for 20% of area retrofitted for "infiltration" practices is also not feasible in an urban setting with near-surface impermeable clay soils.

In addition to unavailable funding, the City does not have the legal authority to mandate retrofits on private lands. Even if authority was granted to acquire rights on private property for this purpose, the higher land values and density in the City raises the question of equity as compared to more rural jurisdictions. Broad-brush prescriptive measures will have unequal impacts.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0467.1.001.015

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

C. Reallocation Of Loads To Other Sectors Is Unjustified and Inequitable

1. The draft TMDL states that "EPA is establishing draft backstop allocations that reduce the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions draft Phase I WIPs addressing non-point source reductions."

2. EPA's discretionary decision to assign all non-point source loading reductions to the point sources is without support. In its September 27, 2010 Comment Document on Pennsylvania's WIP, EPA states that "load from point source reductions [will be] redistributed to forest, septic, and agriculture sources as possible..." There is no justification for shifting such loading reduction from forest and agriculture sources onto the ratepayers of municipal wastewater treatment plants in Pennsylvania.

3. EPA's conclusion that the failure of the non-point source sector to meet its allocations should not be a reason to reduce the allocations of the point source sector and assign the difference to the non-point source sector.

4. The draft TMDL fails to adequately address any mechanisms to reduce the loading from non-point sources, which account for the majority of the loadings to the Chesapeake Bay.

5. Does EPA expect that regulating only the point sources of nutrients will satisfy the restoration objectives of the Bay TMDL?

D. Limit of Treatment Technology for POTW's is Incorrect

1. Please describe how EPA determined the limits of technology for nitrogen and phosphorus (3 mg/l and 0.1 mg/l,

respectively) to be used in conjunction with the backstop allocation approach and the documents supporting such determination.

2. Please identify what treatment technology is required for achieving this performance (e.g., MBR's, denite filters).
3. Please state what consideration has been given to the colder wastewater temperatures that prevail in Pennsylvania than in, say, mid-Maryland.
4. Please provide the analysis that relates the limit of treatment technology to the results that would be reported in a DMR given that the limit of detection of total phosphorus is 0.06 mg/l and that a non-detection result will be reported as 0.03 mg/l and not as 0.00 mg/l.
5. Please provide the analysis that relates annual cap loads, given colder wastewater temperature and higher flows in January through April and December of each year, to the aforementioned limit of technology limits for nitrogen and phosphorus.
6. Why is limit of technology applied without regard to delivery ratios?
7. If the requested information is not available, please explain why consideration was not given to these matters.
8. Can special circumstances be argued that limit of technology does not apply to a particular POTW? For example, would a Pennsylvania POTW with a combined sewer system be able to argue that the limit would not apply?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Regarding questions on limit of technology for POTWs, please see the response to comment 0414.1.001.005.

Comment ID 0473.1.001.007

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

- The revised WIP that is being submitted to EPA shows that the Commonwealth gives reasonable assurances that it can meet load allocations at the border. As a non-tidal state, Pennsylvania disagrees with the imposition of "federal backstop measures" in the draft Chesapeake Bay TMDL, including the establishment of individual waste load allocations (WLAs) for all significant point sources, aggregate WLAs for other entities regulated by the NPDES, and aggregate load allocations (LAs) for nonpoint source sectors.

Response

Please refer to the response for comment 0229.1.001.005. Please also see the response to comments 0267.1.001.006 and 0568.1.001.007 for more information on how upstream loadings of pollutants contribute to the downstream non-attainment of water quality standards.

Comment ID 0497.1.001.002

Author Name: Hobbs Jack

Organization: Town of Amherst, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0497.1.001.004

Author Name: Hobbs Jack

Organization: Town of Amherst, Virginia

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0510.1.001.002

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

NASDA's concerns with the Draft TMDL fall into two broad categories: (1) the national implications associated with EPA's acknowledgement that the agency's approach for the Chesapeake Bay and Draft TMDL will be replicated in other watersheds across the country and (2) concerns regarding the development process of the Draft TMDL and its implications on agricultural producers in the six Chesapeake Bay states. While these comments focus largely on our specific concerns with elements of the Draft TMDL, NASDA is very concerned about the potential national ramifications this draft could have on national water policy. EPA has made numerous direct connections between its current activities in the Chesapeake Bay, and its desire to implement similar strategies in other watersheds. In fact, in the August 2010 draft Strategy for Achieving Clean Water, the agency emphasized that, "Success in cleaning up the Chesapeake Bay watershed will be a model for watershed protection in other parts of the country." We are particularly concerned about elements of the Draft TMDL, as well as other related activities of the agency, that undermine state authority and responsibilities under the Clean Water Act.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please see the response to comment 0571.1.001.005.

Comment ID 0510.1.001.011

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

The Draft TMDL is arbitrary and capricious. The TMDL allocations are based on data that EPA acknowledges is flawed. EPA acknowledges that the allocations are likely to be revised in 2011 when better data on the application and effectiveness of agriculture nutrient management plans and better data on the extent of impervious surfaces in suburban development are incorporated in the Chesapeake Bay watershed model. Yet, EPA plans to proceed to issue a TMDL that will have real regulatory consequences notwithstanding the fact that EPA knows that it is inaccurate.

Response

Please see the response to comment 0174.1.001.003.

Comment ID 0515.1.001.013

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

C. Equity of Allocations as between Bay Jurisdictions is Essential

The federal government must be actively involved in ensuring that there is a "level playing field" throughout the Bay watershed so that citizens in different states (or citizens of different regions within the same state) are not disparately impacted by the TMDL (keeping in mind the relative contributions of the jurisdictions to the degradation of the Bay as well as the direct benefits that will accrue to each jurisdiction from restoration of the Bay). To do otherwise creates financial disincentives for industries and residents to locate or remain in the more stringently-regulated or impacted communities and, conversely, incentivizes siting decisions by industries into less stringently-regulated or impacted communities where, for example, their wastewater discharges would not be as well-treated to the high water quality standards necessary to meet the TMDL, or the Bay's WQ needs.

Proportionately, the TMDL requires New York to do more than other jurisdictions given its remote "headwater state" status and the effect of the Delivery Coefficients whereby multiple pounds of nutrients or sediments must be removed at EOS in New York to prevent delivery of a single pound into the Bay (in contrast, the Bay shoreline jurisdictions have Delivery Coefficients close to 100% such that their respective removals and improvements translate nearly pound-for-pound in delivery prevention to the Bay). Further, because New York is already a leader and has unimpaired WQ at the Pennsylvania border, the EPA's approach of allocating "by reduction from existing conditions" (as opposed to seeking to attain a defined WQ standard) requires New York to do more proportionately than other Bay watershed jurisdictions. The graphs at the bottom of the first page of the attached Upper Susquehanna Coalition ("USC") Fact Sheet clearly illustrate that, on a strict WQ basis, there is a much smaller need for WQ improvement in New York in order to meet the TMDL's allocations [Comment Letter contains additional information in the form of an attachment. See original comment letter 0515.1]. Most importantly, these graphs are based on actual measured USGS WQ data at Towanda, Pennsylvania and, with respect to New York, do not reflect the metabolizing/neutralizing effect of the Pennsylvania and Maryland portions of the Susquehanna River which will result in further reduction of the eventual "delivered load" when the New York delivered water reaches the Bay. Therefore, when "Delivery Coefficients" are taken into account, significantly larger reductions are required of New York at EOS than would be needed to meet the WQ standards required at entry to the Bay under the TMDL. As a result, the TMDL requires the New York portion of the Bay watershed to perform, and bear the cost of, work needed to meet other Bay jurisdictions' obligations to the Bay (whereas, as noted above, some 22% of the human population in the New York portion of the Bay watershed subsists below the federal poverty line, and New York receives no corresponding direct economic benefit from the Bay).

D. The EPA's TMDL Allocations Do Not Appear to Reflect a Unit Area Loading Analysis

The attached memorandum regarding unit area loadings prepared by the USC provides a detailed analysis of unit area loadings within the Bay watershed [Comment Letter contains additional information in the form of an attachment. See original comment letter 0515.1]. Did the EPA take into account unit area loadings in developing the TMDL? (The TMDL does not contain any such discussion). If so, did the EPA include adjustments for both human population density AND animal life density (agriculture and wild [aquatic and terrestrial])?

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0523.1.001.004

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

We strongly oppose EPA's inequitable proposal to transfer more burden to our WWTP and similar point sources. We object to EPA's currently proposed "backstops" (4 mg/L TN and 0.3 mg/L TP at design flow) in lieu of the WLAs in the Virginia Regulations, and we also object to the threatened but not applied "full backstops" that would decrease the concentration basis further (3 mg/L TN and 0.1 mg/L TP at design flow) and even the flow basis to past flow levels (2007 to 2009 average flow rather than design flow).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0534.1.001.002

Author Name: Golazeski Daria

Organization: Broome-Tioga Stormwater Coalition (BTSC)

The communities of New York State that comprise the headwaters of the Susquehanna and Chemung River watersheds have long recognized their role as partners in the restoration of the Chesapeake Bay. In acknowledgment of that role, New York State has made great strides to improve water quality through stringent regulations and programs in the areas of stormwater pollution prevention and agricultural environmental management, exceeding those mandated by the federal government. As a result, New York State water quality far exceeds that of other jurisdictions in the Chesapeake Bay watershed. The BTSC comprised of 15 municipalities in Broome and Tioga Counties, was formed in 2004 to address the issues surrounding local stormwater pollution and has worked toward goals to reduce our pollutant load to the Chesapeake Bay.

EPA's proposed TMDL imposes disproportionately heavy restrictions on NY. If other states reached the level of performance achieved in New York over the past decade for Nitrogen and Phosphorous, there would be no need for a TMDL. Even if other states in the watershed achieve their mandated allocations, their water would still contain more N and P than New York at present.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0534.1.001.005

Author Name: Golazeski Daria

Organization: Broome-Tioga Stormwater Coalition (BTSC)

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order to move forward in confidence, the TMDL load allocations need to be viewed as equitable, attainable and affordable by all parties involved.

Therefore, in regard to the establishment of the Chesapeake Bay TMDL in New York State, the Broome-Tioga Stormwater Coalition stands by the assessment of the NYS Department of Environmental Conservation and its water quality partners as set forth in the draft Watershed Implementation Plan. Furthermore, we urge the EPA to work with New York to develop a plan that will restore the Bay in a manner that is not an unbearable burden on New York State communities.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0548.1.001.009

Author Name: Smith Brooks

Organization: Utility Water Act Group

7. UWAG questions the achievability of the Bay TMDL.

EPA's draft TMDL imposes severe reductions on regulated point sources. In some cases, the allocations for these sources have been cut by more than 50% when compared to the corresponding state targets for restoring the Bay.[FN 20] In Virginia, EPA assigned sediment allocations using an across-the-board TSS concentration target of 5 mg/l for all industrial and municipal point sources. Even with filtration, this target is unachievable for many industrial facilities and, in any event, is unnecessary to meet EPA's environmental objectives (see earlier example on page 5).

UWAG is concerned about the achievability of the allocations set forth in the draft TMDL. UWAG is even more concerned about EPA's apparent failure to consider achievability in setting these allocations.

Over the past decade, there has been growing awareness of the need for assessing achievability as part of (or even before) the TMDL development process. The National Research Council stressed this in its landmark 2001 report, *Assessing the TMDL Approach to Water Quality Management*. The Government Accounting Office did so, as well, in its

2003 report, Improved EPA Guidance and Support Can Help States Develop Standards That Better Target Cleanup Efforts. And even EPA has conceded that it needs to do a better job assessing achievability, a concession made in the Agency's 2002 report, The Twenty Needs Report: How Research Can Improve the TMDL Program.

Nothing in the current record addresses the achievability of the draft TMDL from a socio-economic perspective. We believe this is a critical shortcoming in the proceeding, and one that needs to be corrected through the use attainability analysis ("UAA") work that EPA initiated but never fully completed.[FN 21] Unless and until EPA assesses and confirms that its proposed TMDL reductions will not cause widespread socio-economic impact, EPA should not finalize the TMDL. If EPA does finalize the TMDL without such an assessment, then its action will trigger the expenditure of public and private resources, as well as permitting and enforcement actions that may prove to be misdirected, unnecessary, or unachievable.

At a minimum, we believe that EPA must amend the record to include a demonstration that the TMDL is in fact achievable. And EPA must then give interested stakeholders, like UWAG, an opportunity to review this record. If aspects of the TMDL are not achievable, then EPA cannot proceed as proposed.

[FN 20] By way of example, Virginia's target for the Hopewell Regional Waste Treatment Facility was 1,785,125 lbs/yr TN. EPA adjusted this to 609,112 lbs/yr, a 66% reduction. Similarly, Virginia's target for the HRSD-Chesapeake/Elizabeth Waste Treatment facility was 1,074,590 lbs/yr TN. EPA adjusted this to 292,374 lbs/yr, a 73% reduction.

[FN 21] EPA's UAA effort included the development of a scenario to assess and quantify the technical, operational, and economic achievability of the reductions projected by EPA's Bay models. However, without explanation, EPA abandoned this effort in April 2009.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please also see the response to comment 0101-cp.001.001 regarding a use attainability analysis for the Chesapeake Bay.

Comment ID 0565.1.001.004

Author Name: Faggert Pamela

Organization: Dominion Resources Services, Inc.

Conclusion

We appreciate the opportunity to comment on the EPA draft TMDL as applicable. We understand that at this stage in the restoration of the Chesapeake Bay, challenging decisions abound. We urge the EPA to maintain equity within its next iteration of the draft TMDL, and we request that the EPA work with the Chesapeake Bay jurisdictions to avoid the disparate impacts of the proposed backstops.

Response

Please refer to the response for comment 0246.1.001.004. EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals.

Comment ID 0571.1.001.013

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

b. No Data is Provided to Demonstrate that the "Backstop Allocations" are Necessary or Achievable in Practice

After receiving the state WIPs in the beginning of September and with very little time for review, EPA very quickly deemed all of them inadequate in some way or another. EPA then determined how to make up the shortfall in a state's "insufficient" pollution loading reductions and/or insufficient amount of reasonable assurance for the remainder of the allocation. EPA then applied these various "backstop allocations" to the state WIPs. The agency, however, provides no details for how it determined the adequacy of the WIPs or how the need for, or level of, backstop allocations was established.

EPA's "moderate" backstop allocations for urban stormwater in the WIPs for Delaware, New York, Pennsylvania, Virginia and West Virginia, for example, are shown on pages 8-14 and 8-15 of the proposal. The performance standards in the backstop allocations have surely never been met before by an MS4 anywhere in the country, yet EPA provides no support for its statement that the backstop allocations for urban stormwater programs are necessary or achievable, not to mention affordable, goals for MS4s. Details regarding how and why the backstop allocations were derived and how they are expected to be attained are vital to understanding the TMDL as well as its overall impact. Likewise, the agency must provide information on expected costs of meeting the standards and the impacts of those costs on the regional economy and the affordability of housing.

Finally, the direction and intent of the backstop allocations is not always clear. NAHB understands the language on pages 8-14 and 8-15 concerning the goals of the backstop allocations for urban stormwater to mean that 50 percent of the MS4's existing impervious cover would be affected by the proposed rules. As we understand the language, in regions with karst topography and coastal plain lowlands, for example, 50 percent of the impervious cover in the MS4

must be reduced by 50 percent using cisterns and collection systems so that a maximum of 25 percent of impervious cover will remain in the MS4 by 2025. In addition, filtering practices are required so that environmental impacts are reduced from another 15 percent of the existing impervious cover by 2025 and infiltration practices are required so that environmental impacts are reduced from another 10 percent of the existing impervious cover by 2025. Thus, by the end of 2025, the requirement allows that 50 percent of the original impervious pavement will remain unaddressed. Does EPA concur with our understanding of the language of the backstop allocations for urban stormwater?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0572.1.001.006

Author Name: Robinson Steve

Organization: National Association of Conservation Districts (NACD)

NACD is also concerned by EPA's efforts to pressure states into compliance through the use of backstop actions, including the redirecting of EPA grants. This is a troubling departure from the state and federal cooperation envisioned by the CWA. Under the CWA, states are responsible for carrying out CWA programs, and EPA does not dictate how water quality standards are met.

We strongly oppose EPA's top-down, regulatory approach and its counter-productive restrictions that would not only limit opportunities for agriculture operations, but threaten to put many out of business. It is important that EPA gives locally-led efforts an opportunity to succeed. EPA's focus should be to provide resources and tools-including financial and technical assistance- needed for successful state and local Chesapeake Bay watershed efforts. NACD encourages EPA to work collaboratively with local communities and stakeholders, instead of relying solely on regulatory and enforcement tools. This investment-along with appropriate conservation incentives-will provide for the most successful implementation of conservation strategies and best management practices to accomplish these vital goals.

Conservation districts are committed to making a difference in the Chesapeake Bay. With 121 districts covering the Bay watershed, our ability to work with landowners and local communities to implement conservation practices and address both rural and urban nonpoint source issues is unrivaled. NACD and our members look forward to providing leadership and support toward ongoing Chesapeake Bay restoration efforts.

Response

Please refer to the response for comment 0229.1.001.005. The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002.

Comment ID 0575.1.001.004

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

H. The TMDL does not acknowledge and accept Virginia's proposal to revise the chlorophyll standards and improve the modeling framework

Appendix 2 of Virginia's WIP contains a Draft James River Chlorophyll-a study plan. Successful completion of this study plan is essential to address the stated deficiencies of the standard and the associated modeling framework that are referenced in these comments. EPA has ignored the importance or implications of this study in the Chesapeake Bay TMDL. The existing allocations listed in the EPA TMDL for the James River based on chlorophyll-a (23.48 mpy TN, and 2.340 mpy TP) should be replaced with allocations consistent with Tributary Strategies. EPA's TMDL should include the chlorophyll-a study in the TMDL. However, EPA must clearly state the level of unreliability that exists with the present chlorophyll-a standard and the modeling results in the TMDL document.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please also see the response to comment 0293.1.001.017 for more information on the James River allocations.

Comment ID 0587.1.001.011

Author Name: Watts George

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

7. Water Quality Standards and Wasteload Allocations

There are a number of questions we have regarding the allocations that are included in the TMDL and the WQS upon which they are based.

For example, Section 3.2.3 of the TMDL states:

Several tidal Bay segment-specific applications of DO criteria are unique to Maryland. In the middle-central Chesapeake Bay segment (CB4MH), restoration variances of 7 and 2 percent apply to the application of the deep-water and deep-channel designated use DO criteria, respectively. In the Patapsco River segment (PATMH), a restoration variance of 7 percent applies to the application of the deep-water criteria (COMAR 26.08.02.03-

3(c)(8)(e)(vi). Such restoration variances are consistent with EPA-published guidance (USEPA 2003c) and were approved by EPA on August 29, 2005.

Additionally, footnote 18 that is referenced in this paragraph states:

A restoration variance is the percentage of allowable exceedance based on water quality modeling incorporating the best available data and assumptions. The restoration variances are temporary and will be reviewed at a minimum every 3 years, as required by the CWA and EPA regulations. The variances could be modified on the basis of new data or assumptions incorporated into the water quality model. COMAR 26.08.02.03-3(C)(8)(h).

It is not clear whether these "restoration variances" were the water quality standards used in establishing the TMDL. TMDLs must be developed to meet current established water quality standards, not "variances" which are temporary standards. Additionally, as stated in the EPA memorandum entitled Guidance for 2004 Assessment, Listening and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, from the Director of Wetlands, Oceans, and Watershed, Diane Regas states:

States should be aware that a TMDL should be developed to meet the existing WQS, not a temporary variance that is less stringent than the existing WQS.

http://www.epa.gov/owow/tmdl/tmdl0103/2004rpt_guidance.pdf

We know EPA developed the target allocations with the restoration variances based on what was presented during various WQGIT meetings. The text of the TMDL infers that EPA approved the original variances as a WQS. Variances are part of a WQS action - but they are still considered variances and not the applicable WQS.

Additionally, there are no WLAs based on current WQS at all. EPA has allocations applied to segments, but no aggregate or individual WLAs for sources." The regulation clearly requires the development of a WLA for these sources.

Section 9 of the TMDL is suppose to contain the Chesapeake Bay TMDLs. Section 9.1 includes the Chesapeake Bay segment annual and daily allocations to meet "Proposed Amended" WQS. In section 9.1 there are four tables (emphasis added in bold):

--Table 9-1. Draft Chesapeake Bay TMDL total nitrogen (TN) annual allocations (pounds per year) by Chesapeake Bay segment for the proposed amended Chesapeake Bay WQS

--Table 9-2. Draft Chesapeake Bay TMDL total phosphorus (TP) annual allocations (pounds per year) by Chesapeake Bay segment for the proposed amended Chesapeake Bay WQS

--Table 9-3. Draft Chesapeake Bay TMDL sediment (SED) annual allocations (thousands of pounds per year) by Chesapeake Bay segment for the proposed amended Chesapeake Bay WQS

--Table 9-4. Individual WLAs (Annual) for the 483 significant permitted dischargers to meet TMDLs to address the proposed amended Chesapeake Bay WQS

Section 9.2 includes the Bay segment annual and daily allocations to meet "Current" WQS. In Section 9.2 there are three tables (emphasis added in bold):

--Table 9-5. Draft Chesapeake Bay TMDL total nitrogen (TN) annual allocations (pounds per year) by Chesapeake Bay segment for the current Chesapeake Bay WQS

--Table 9-6. Draft Chesapeake Bay TMDL total phosphorus (TP) annual allocations (pounds per year delivered to tidal waters) by Chesapeake Bay segment for the current Chesapeake Bay WQS

--Table 9-7. Draft Chesapeake Bay TMDL sediment (SED) annual allocations (thousands of pounds per year) by Chesapeake Bay segment for the current Chesapeake Bay WQS

Section 9 does not include a table with individual WLAs for the 483 significant permitted dischargers to address the current Chesapeake Bay WQS.

Additionally, Section 9 explains that additional information is included in the appendices. From Section 9.1

More detailed annual LAs by sector and annual WLAs by individual facility are provided in Appendix Q. Daily LAs and WLAs for the areas draining to the 92 segments are provided in Appendix R.

From Section 9.2

More detailed annual LAs by sector and annual WLAs by individual facility are provided in Appendix Q. Daily LAs and WLAs for the areas draining to the 92 segments are provided in Appendix R.

A review of the appendices is very difficult. Appendix Q1 is a file created using pdf technology and is 480 pages long with no formatting of the table. Many of the pages consist of one or two columns of numbers. Column headers are located if reviewing the file page-by-page. The headers indicate the data are for "ProposedWQS".

The same search was conducted in Appendix Q2. Appendix Q2 also had 480 pages, most of which were two to three columns of numbers and approximately 20 pages with no data. The headers in Q2 indicate the data are for "FullBackStopTMDL." There is no information to indicate whether this is for "Proposed" or "Current" WQS.

Appendix R included an introduction on the first page of the file explaining the data in the appendix.

Appendix R includes detailed nitrogen, phosphorus, and sediment daily allocations to achieve the proposed amended WQS (Section 8)

A review of the available information in the TMDL indicates EPA has failed to provide the individual WLAs for the current WQS. As noted in Section 1 of the TMDL:

A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet applicable WQS. A mathematical definition of a TMDL is written as the sum of the individual WLAs for point sources, the LAs for nonpoint

sources and natural background, and a margin of safety [CWA section 303(d)(1)(C)]:

$$\text{TMDL} = \text{WLA} + \text{LA} + \text{MOS}$$

where

WLA = wasteload allocation, or the portion of the TMDL allocated to existing and/or future point sources.

LA = load allocation, or the portion of the TMDL attributed to existing and/or future nonpoint sources and natural background.

MOS = margin of safety, or the portion of the TMDL that accounts for any lack of knowledge concerning the relationship between effluent limitations and water quality, such as uncertainty about the relationship between pollutant loads and receiving water quality, which can be provided implicitly by applying conservative analytical assumptions or explicitly by reserving a portion of loading capacity.

The regulations at 40 CFR 130.2 and 130.7 define what constitutes a TMDL and how the TMDL is to be developed by the state. The regulations clearly require that a WLA be included in the TMDL and the TMDL clearly be established to meet the current water quality standards, not proposed water quality standards. The regulations note:

the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

"Proposed" water quality standards are not water quality standards "established under section 303." Therefore, this TMDL needs to be withdrawn and re-proposed in the Federal Register and include WLAs designed to meet the "applicable" water quality standard.

EPA must withdraw the TMDL and re-draft the report to clearly explain how the "variances" were used or not used in establishing the TMDL and to provide WLA for applicable sources based on current WQS.

Response

The final Chesapeake Bay TMDLs were developed to meet the applicable water quality standards as shown in Sections 3 and 9 of the final TMDL Report. Tables 9-1 through 9-3 of the final TMDL report present TMDL allocations for each of the 92 segments for nitrogen, phosphorus, and sediment, respectively. Table 9-4 of the final TMDL report presents nitrogen, phosphorus, and sediment WLAs for each of the 483 significant permitted dischargers. More detailed annual TMDLs, load allocations (LAs), and wasteload allocations (WLAs) are provided in Appendix Q while daily TMDLs, LAs, and WLAs are provided in Appendix R. All TMDL allocations were developed to meet applicable water quality standards. For additional information on restoration variances, please see Section 3.2.3 of the final TMDL Report.

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Regarding your comment to withdraw the TMDL, please see the response to comment 0062.1.001.004.

Comment ID 0591.1.001.004

Author Name: Shields M.

Organization:

Concerning Jefferson County, WV, the imposed requirements for implementing bay cleanup initiatives are not in line with reality. They are some "scientists" idea of a "model."

Response

Please refer to the response for comment 0229.1.001.005. Please also see the response to comments 0238-cp.001.002 and 0379.1.001.006 for more information on the models utilized in the Chesapeake Bay TMDL development.

Comment ID 0601-cp.001.004

Author Name: Greenfield Elizabeth

Organization: Richmond Association of Realtors (RAR)

On behalf of the 4,700 members of the Richmond Association of Realtors®, we are formally submitting comments on the implementation of the TMDL. The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant up

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water

quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0603-cp.001.004

Author Name: Kerr Bob

Organization: Kerr Environmental Services Corp.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP. Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0604.1.001.004

Author Name: Missimer Carroll

Organization: P. H. Glatfelter Company

EPA Must Consider the Important Characteristics of Pulp and Paper Mill Waste Waters When Setting Nutrient Limits

Unlike untreated municipal waste waters, untreated pulp and paper mill waste waters contain very low levels of the phosphorous and nitrogen. In fact, most pulp and paper mills must add nutrients to their incoming waste waters to promote the growth of the right populations of micro-organisms needed to break down the waste material in the waste water. In the case of Glatfelter's Spring Grove mill, the waste water treatment plant receives the secondarily treated waste waters from two nearby municipal waste water treatment plants thereby providing tertiary treatment for those municipal waste waters while providing the industrial waste water with the nutrients needed to operate properly. However, even with these extra nutrients, Glatfelter must still add additional phosphorous to maintain the correct biological community in the secondary waste water treatment plant.

NCASI completed a comprehensive survey of nutrient minimization in biologically treated pulp and paper mill effluents. Mills using an activated sludge process with low final effluent concentrations of phosphorous and nitrogen had average final effluent concentrations ranging from 0.1 - 0.90 mg/L total phosphorous and 1.3 - 4.7 mg/L total nitrogen. (See Attachment A) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0604.1]. Lowering nutrients to levels less than these best performing mills is only accomplished at the risk of impairing the entire waste water treatment process.

Accordingly, EPA should base its final effluent nutrient requirements for pulp and paper mill effluents on the demonstrated average performance of these mills and not on the results of an arbitrary modeling exercise.

Response

Please refer to the response for comment 0413.1.001.005 regarding paper and pulp mills. Additionally, it is noted that the wasteload allocations in the final TMDL are largely based on state WIP rather than EPA backstop allocations.

Comment ID 0604.1.001.005

Author Name: Missimer Carroll

Organization: P. H. Glatfelter Company

EPA's Proposed Limits on Sediments Do Not Consider the Properties of Suspended Solids Discharged from Waste Water Treatment Plants

The proposed TMDL for the Chesapeake Bay treats all sediments equally when there are significant physical and chemical differences between different types of sediments such as soil from farm land erosion and suspended solids from municipal and industrial waste water treatment plants. The sediments that settle to the bottom of the Chesapeake Bay and suffocate submerged aquatic vegetation or cloud the water column are primarily mineral in nature and are the result of soil and stream erosion associated with storm events. On the other hand, the suspended solids that are discharged from municipal and industrial waste water treatment plants are primary biological in nature.

As documented in Thacker (2010) (See Attachment B) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0604.1] the suspended solids discharged from pulp and paper mill waste

water treatment plants are mostly biological in nature and consist of bacteria and bacteria cell fragments that typically less than 10 um in diameter and serve as a food source for aquatic organisms ranging from benthic macro-invertebrates to fish. These sediments do not travel long distances from the tributaries into which they are discharged and are thus not the cause of the sediment issues in the bay.

Accordingly, EPA should differentiate between the sediments coming from municipal and industrial waste water treatment plants and sediments from nonpoint sources. Waste water treatment plants that are meeting the suspended solids limits established from US EPA's effluent guidelines should not be required to further reduce suspended solids to an arbitrary level based on modeling.

Response

Please refer to the response for comment 0299.1.001.006 for additional information on sediment allocations to WWTPs and to the response for comment 0413.1.001.005 regarding paper and pulp mills.

Comment ID 0612.1.001.005

Author Name: Willis James

Organization: Titan America LLC

Titan America supports delaying adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--No legal authority exists for the full range of urban/suburban retrofits the EPA draft TMDL or backstops would require of existing properties, including state and local highways. These include installing rain gardens and tearing up parking lots and installing stormwater controls including pervious asphalt. Such controls are far more expensive and achieve far less pollutant reductions per dollar spent than wastewater treatment plant upgrades (which developers pay for too) or many agricultural best management practices contained in the Virginia draft WIP.

Response

Regarding your comment to delay the adoption of the TMDL, please see the response to comment 0062.1.001.004.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates

to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0622-cp.001.001

Author Name: Bruce D.

Organization: Rainbow Hill Farm

The Proposed Chesapeake Bay TMDL perhaps in theory and intent is a good plan, but it seems to be directed at farmers, who are not financially in a position to do as much as they'd like to help insure clean water in the Bay.

Response

Please refer to the response for comment 0229.1.001.005. Please also see the response to comment 0139.1.001.006 which discusses the issue of economic impacts to individual farmers.

Comment ID 0669.001.005

Author Name: Burkholder J.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fifth: We have demonstrated our ability to work with state and local agencies to improve water quality. Many of our farms already have permits from various state agencies. We hope control of the plan and all regulations will be managed at the state level.

Response

Please see the response for comment 0402.001.005.

Comment ID 0687.001.004

Author Name: Comment Anonymous

Organization:

5. Has the EPA provided recommended Sector Allocations to the states? If so, where are they located in the TMDL?

Response

In a letter dated July 1, 2010, EPA provided draft nitrogen and phosphorus basin-jurisdiction allocations (http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/HonorableShariTWilson-701122302-0001.pdf). Sediment basin-jurisdiction allocations were provided by EPA in a letter dated August 13, 2010 (http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/Ches_Bay_Sediment_Letter.PDF). The jurisdictions used these draft basin-jurisdiction allocations to develop their Phase I WIP which further divided the allocations among the various nonpoint source and point source sectors.

Comment ID 0689.1.001.007

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

Is the Blue Plains plant treated differently under the Bay TMDL and/or EPA's "backstop allocation" approach than wastewater treatment plants in Pennsylvania and elsewhere?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0689.1.001.021

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

32. The draft TMDL states that "EPA is establishing draft backstop allocations that reduce the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions draft Phase I WIPs addressing nonpoint source reductions" (p.8-9).

(a) Does EPA consider the bases for development of the Bay TMDL, including the monitoring, modeling, identification of critical conditions, etc. essentially a non-issue, now that EPA has indiscriminately foisted upon the point sources the loading reductions assigned to the non-point sources. (See draft TMDL, Sections 1-6.)

(b) EPA appears ambivalent and is completely ignoring the fact that municipal wastewater treatment plants have

collectively spent or allocated hundreds of millions of dollars toward design and engineering to meet the discharge requirements in their current state issued NPDES permits, which were intended to demonstrate compliance with Chesapeake Bay-related standards. Many of these upgrades may become obsolete and cannot be used in conjunction with the "backstop allocation" approach limit of technology standard for nitrogen and phosphorus. How can EPA justify this potentially significant waste of money in these difficult economic times to meet the most stringent standard possible, simply because the government is unwilling to allocate loading reductions to non-point sources? EPA must provide to the public justification for such an extraordinary waste of money and full disclosure on the process leading to this decision.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0689.1.001.029

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

42. Did EPA consider the requirements imposed on local governments, including municipal authorities, (e.g., bidding, procurement, design, construction, financing) in structuring its proposed backstop allocation approach?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0689.1.001.033

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

46. Attached is a letter sent to the Department by the commenter, dated November 1, 2010, addressing the Department's draft WIP and EPA's "backstop allocation" approach. Dear Mr. Hines:

We are writing this letter to you on behalf of the Capital Region Council of Governments ("CAPCOG") and its TMDL Work Group regarding the draft Chesapeake Bay TMDL ("Draft TMDL"), which was issued on September 24, 2010. The purpose of this letter is not to comment specifically on the Draft TMDL or on Pennsylvania's draft Watershed Implementation Plan ("WIP"). Comments to both of these documents will be provided at the appropriate time. Nevertheless, the CAPCOG would like to express its extreme displeasure with the Draft TMDL's approach to addressing pollutant reductions to the Chesapeake Bay from Pennsylvania, specifically as these reductions relate to wastewater treatment plants within the Commonwealth. Putting aside any legal issues that may be relevant to this matter, the United States Environmental Protection Agency's ("EPA") September 27, 2010 comments to Pennsylvania's draft WIP indicate that EPA is poised to force the Pennsylvania Department of Environmental Protection ("Department") to impose additional nitrogen and phosphorus limits on significant wastewater treatment plants in the Commonwealth at a crippling cost to ratepayers, despite the fact that these ratepayers having already collectively spent or allocated hundreds of millions of dollars to meet discharge limits mandated by the Department to address nutrient loadings to the Bay. That is, unless the Department acts quickly to prevent such an inequitable situation from occurring.

Over the past year, the Department has repeatedly and publicly assured Pennsylvania wastewater treatment plants that there will be no more stringent limits imposed upon them with respect to the Chesapeake Bay, beyond those limits contained in their current NPDES permits. During recent public meetings, the Department confirmed this position despite EPA's September 27, 2010 comment document to Pennsylvania's draft WIP, which stated that "unless DEP significantly improves and submits a final Phase I WIP addressing the concerns raised [by EPA]: significant municipal plants in the Commonwealth will be forced to meet the "limit of technology" for nitrogen and phosphorus (3 mg/l TN and .1 mg/l TP). (This scenario is part of EPA's "backstop .allocation" approach should Pennsylvania's final WIP be disapproved by EPA) At this critical juncture in the development of the Chesapeake Bay TMDL, the Department must demonstrate that its assurance that no more stringent limits will be placed on point sources is more than merely "lip-service."

As you are aware, EPA's position throughout the TMDL development process is that it lacks authority under the Clean Water Act to regulate non-point sources, and that it is the Department's obligation under state law to address the non-point source sector's pollutant contribution to the Bay. Unless we are mistaken, EPA is telling the Department that unless the Department can provide EPA with "reasonable assurance" that Pennsylvania's WIP will meet the Commonwealth's loading reduction obligations under the Draft TMDL, sewer ratepayers alone will be forced to bear virtually the entire economic burden to ensure that Pennsylvania's loading reduction requirements under the Bay TMDL are met. The inequity of this result will be profound. For example, the Department's own data indicate that wastewater treatment plants contribute only twelve percent (12%) of the nitrogen loading in Pennsylvania, while agriculture and forest together account for nearly eighty percent (80%) of the nitrogen loading. Yet, under EPA's backstop allocation

approach, the wastewater treatment plants will be responsible for nearly all of the associated loading reductions. (It should be noted here that the nutrient contribution from non-point sources is about eight-times the volume of nutrients from point sources.) Therefore, Unless the Department is firmly committed to addressing the non-point source sector loading reductions through its regulatory authority under the Clean Streams Law or other relevant statutes, wastewater treatments plants will be responsible for not only their loading reductions, but also those of the non-point source sector. Forcing ratepayers in the Commonwealth to directly subsidize and pay for the cost of loading reductions for the non-point source sector is simply unacceptable. Frankly, the Commonwealth's wastewater treatment plants and their customers should not be pawns in a policy dispute between the federal and state governments over their political reluctance to fairly and equitably allocate nutrient reductions amongst all sources of nutrients to the Bay. Moreover, does anyone within the Department (or EPA for that matter) actually believe that regulating the point sources, but ignoring the non-point sources, will lead to the restoration of the Chesapeake Bay?

As you know, the cost to implement the limitations in the wastewater treatment plants' current permits exceeds \$1 billion. Under EPA's backstop allocation approach, some newly constructed plant features will become instantly obsolete because the new limits to be imposed by EPA will require process and plant redesign. We understand that the Department itself estimates that the additional cost to the treatment plants to meet the limit of technology standards will be \$1 billion. If that is, indeed, the case, particularly in these troubled economic times, EPA and the Department will have to answer to each and every ratepayer in the Commonwealth for their profoundly wasteful decisions.

In summary, it is incumbent upon the Department to reinvent its WIP and assign proper responsibility for the reduction in pollutants to the Bay to the sector that contributes the largest percentage of such pollutants, the non-point source sector. EPA is adamant that it will not regulate non-point sources; therefore, the Department must mandate non-point source reductions with the same vigor with which it issued expensive cap loads on sewer ratepayers. Therefore, it appears that the Department has two choices: 1) revise its WIP to establish effective and mandatory non-point source sector loading reductions; or 2) maintain the status quo and completely disregard the thousands of ratepayers in the Commonwealth who will be forced to bear the burden of an inequitable and disparate plan to restore the Chesapeake Bay. We trust that the Department will choose the former option, and submit a final WIP to EPA on November 29, 2010 which will leave EPA with no other option but to abandon its backstop allocation approach in Pennsylvania.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Regarding specific comments on a jurisdiction's WIP, please refer to the response for comment 0034-cp.001.001.

Comment ID 0702.001.005

Author Name: Eberly N.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fifth: We have demonstrated our ability to work with state and local agencies to improve water quality. Many of our farms already have permits from various state agencies. We hope control of the plan and all regulations will be managed at the state level.

Response

Please see the response for comment 0402.001.005.

Comment ID 0710.001.005

Author Name: Berger Karl

Organization: Metropolitan Washington Council of Governments (COG)

Does the inclusion of treating 50 % of unregulated land as regulated and applying standards such as barnyard runoff control, mortality composting, precision feed management, etc., to certain AFOs (as well as CAFOs) as federal backstops mean that EPA believes it has the authority to do this under its existing regulatory authority?

What are "additional adjustments to ag nonpoint sources as necessary to exactly meet N, P and TSS allocations?" - (quote from TMDL Executive Summary re VA moderate level backstopping measures)? Aren't such measures outside of federal regulatory control?

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0710.001.007

Author Name: Berger Karl

Organization: Metropolitan Washington Council of Governments (COG)

In looking at the allocations by segment-shed, is there an easy way to tell if the numbers reflect what is necessary for attainment of overall Bay water quality standards or attainment with meeting a localized impairment?

Response

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Comment ID 0727.001.005

Author Name: Thigpen Janet

Organization: Steuben County Environmental Management Council

Unachievable : The proposed allocations appear to be based on the expectation that New York can provide water that is clean enough to dilute pollutants from other parts of the watershed. In addition to being unfair, the draft allocations are so stringent that they are probably unachievable. This means that they would place great hardship on New York, but would still not achieve the desired water quality benefits in the Chesapeake Bay. We thus request that the proposed allocations be replaced with reasonable allocations that are both equitable and achievable .

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0728.001.004

Author Name: Proto Frank

Organization: Tompkins County Water Resources Council

according to our local SWCD, if the TMDL allocations are done by county, each county will have to figure out how to comply and pay for compliance,

Response

Please refer to the response for comment 0080-cp.001.002 regarding New York allocations.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. For

further information regarding the costs of implementation, please see the response to comments 0052.1.001.001 and 0052.1.001.002.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0730.001.005

Author Name: Horst R.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fifth: We have demonstrated our ability to work with state and local agencies to improve water quality. Many of our farms already have permits from various state agencies. We hope control of the plan and all regulations will be managed at the state level.

Response

Please see the response for comment 0402.001.005.

Comment ID 0734.001.004

Author Name: Augenstern Robert

Organization: Southern Tier East Regional Planning Development Board (STEPDB)

NYS has put forth a concerted effort to devise a draft Watershed Implementation Plan that sets forth goals to achieve realistic and attainable results, yet still has fallen short of the EPA's desired reductions. Due to the already low pollutant levels in NY these required reductions cannot be met, and therefore, the extreme expense associated with the mandates will be fruitless. Rather than imposing a penalty for the great strides that have been achieved, the successes that have been accomplished in NY should be held as a model for other jurisdictions in the Chesapeake Bay Watershed.

The restoration of the Chesapeake Bay requires the participation of all partners and jurisdictions located in the Bay watershed. In order to move forward in confidence, the TMDL load allocations need to be viewed as equitable, attainable and affordable by all parties involved.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0743.001.002

Author Name: Declue Robert

Organization: Water Quality Coordinating Committee (WQCC)

Further, the WQCC strongly encourages the US EPA to greatly decrease the targets reduction in nitrogen and phosphorous for New York State (NYS) to be more in line with reasonable efforts which do not impose draconian measures and penalties upon all aspects of the affected communities, especially agriculture.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0743.001.008

Author Name: Declue Robert

Organization: Water Quality Coordinating Committee (WQCC)

the proposed nutrient and sediment allocations for New York State have been determined by New York State's conservation professionals to not only be unobtainable as proposed but would also have a catastrophically negative impact on the agricultural community of the Chesapeake Bay Watershed of New York and

NOW THEREFORE BE IT RESOLVED that the Chenango County Agricultural & Farmland Protection Board call upon the New York State Farm Bureau, New York State Department of Agriculture and Markets, and the New York State Soil and Water Conservation Committee to pursue talks with the New York State Department of Environmental Conservation, along with State and Federally elected officials and the US Environmental Protection Agency to ensure reasonable and obtainable nitrogen, phosphorous and sediment allocations in New York State for the impending Chesapeake Bay Watershed Total Maximum Daily Load (TMDL) .

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0743.001.011

Author Name: Declue Robert

Organization: Water Quality Coordinating Committee (WQCC)

the proposed nutrient and sediment allocations for New York State have been determined by New York State's conservation professionals to not only be unobtainable as proposed but would also have a catastrophically negative impact on the agricultural community of the Chesapeake Bay Watershed of New York and

NOW THEREFORE BE IT RESOLVED that the Chenango County Water Quality Coordinating Committee call upon the New York State Farm Bureau, New York State Department of Agriculture and Markets, and the New York State Soil and Water Conservation Committee to pursue talks with the New York State Department of Environmental Conservation, along with State and Federally elected officials to ensure reasonable and obtainable nitrogen, phosphorous and sediment allocations in New York State for the impending Chesapeake Bay Watershed Total Maximum Daily Load (TMDL).

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0746.1.001.002

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

The Proposed TMDL is Arbitrary Because it Fails to Account for the Decades of Responsible Stewardship that Reduced Contributions of New York State and the Southern Tier and Rewards States Who Increased Contributions to the Chesapeake Bay Watershed

EPA has been appropriately describing the proposed Chesapeake Bay TMDL ("Bay TMDL") as a needed "pollution diet." However, New York has been on a pollution diet for more than 20 years during which it has steadily decreased the size of its Nitrogen and Phosphorus "waistline." [FN1] This has been accomplished through a variety of programs and is demonstrated by the fact that between 1985 and 2010 New York reduced its Nitrogen and Phosphorus loadings to the Chesapeake Bay watershed by 2.44 million pounds a year (MPY) and 0.08 MPY respectively. Despite New York State's efforts, during the same period baseline contributions from some of the other states within the Chesapeake Bay watershed has actually grown. New York State and the Southern Tier Are Responsible Environmental Stewards and Good Neighbors to the Bay.

EPA has been describing the proposed Bay TMDL as a needed "pollution diet". We believe that this is an appropriate descriptor. We further believe however, that New York has been on this diet for more then 20 years and during that time it has slowly but steadily decreasing the size of its nitrogen and phosphorus "waistline". For example, between 1985

and 2010 New York reduced its Nitrogen and Phosphorus loadings to the Chesapeake Bay watershed by 2.44 million pounds a year (MPY) and 0.08 MPY respectively, while baseline contributions from some of the other Bay States has grown.

[FN1] Because New York has already met its 2025 sediment allocation as stated in the draft Bay TMDL, these comments focus mainly on its proposed nutrient (Nitrogen and Phosphorus) allocations.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0746.1.001.008

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Neither the Load or the Waste Load Allocations are Achievable

As discussed in Section V below, using Nitrogen as an example, because of the more severe winters in new York as compared to the southern portions of the Watershed, the Limit of Technology (LOT) for Biological Nutrient Removal (BNR) is probably 5 mg/L or higher. Because wastewater makes up approximately 88% of the point source load, it is assumed that approximately 88% of the mandated point source reductions would have to come from wastewater sources. According to Table 4-8 in the Draft TMDL, the modeled New York municipal wastewater design flow is 62 MGD [FN11], which would equate to an average Nt concentration of 4.1 mg/L, which is lower than the assumed BNR LOT in New York. Thus, it will be virtually impossible to achieve this allocation. At an average Nt Annual Loading rate equivalent to 5.0 mg/L (the LOT as determined by NYSDEC) and assuming a 62 MGD flow rate, approximately 0.94 MPY of Nitrogen would be discharged. The draft TMDL (in Table 9-1) proposes a final point source (waste load) allocation of 0.89 MPY [FN12]. This indicates that even at the New York LOT, just the WWTP load would be higher than the proposed Nt point source allocation, even before the contributions from the other Point Sources are added in. Clearly this WLA is not achievable.

The only other non-de minimis Point Source category in New York identified in the Draft TMDL are the two MS4 communities, which have an estimated total Nitrogen loading of approximately 0.23MPY per year. Under the reductions discussed in the Draft NY WIP is slated to be reduced to 0.11 MPY. In addition, there currently exist a number of permitted Combined Sewer Overflow (CSO) points within the NYC Bay watershed. A large portion of that storm water associated with these CSOs (including the "first flush") is already captured and treated at a municipal WWTP. Treating excess wet weather flow is beyond the present WWTP's technology of control. Already that portion of the flow that exceeds the existing WWTP's capacity. Total sewer separation is cost prohibitive. Therefore, consistent with the draft NY WIP and discharges from these CSOs should continue to be managed through their respective Long Term Control Plans. Clearly, even if all the nitrogen was removed from these MS4 stormwater (which is an impossibility) and the NY LOT is achieved, the proposed Point Source allocation of 0.89 MPY cannot be met.

Turning to the draft TMDL's Non-Point Source (Load) Allocation, the Draft TMDL (in Table 9-1) calls for New York achieving a final allocation of 7.35 MPY. While this number seems high, once the combined Forrest and Air Deposition fraction, which is assumed to not be reducible, is subtracted, it leaves only 3.70 MPY available to be allocated between all agricultural non-point sources and the non-MS4 "Urban" runoff. The Coalition supports NYSDEC's conclusion expressed in the Draft NY WIP, that only an additional approximate 0.05 MPY reduction in the estimated 0.37 MPY non-MS4 "urban" runoff is likely achievable, forcing agricultural NPS croplands to bear the brunt of the Draft TMDL's Non-Point Source Reduction. Thus, the required agricultural NPS nitrogen reduction would have to be 4.11 MPY- 3.65 MPY = 0.46 MPY (delivered). Because the NY Susquehanna River delivery factor is only approximately 40%, this means that New York farmers within the watershed would have to reduce the amount of Nitrogen in their non-CAFO related stormwater runoff by approximately 1.15 MPY.

In another example, although New York State currently has the lowest unit area loading for Total Phosphorus of any of the states and the District of Columbia, given the current Pt allocation, New York is being required to remove the greatest percentage of phosphorus. This is contradictory, excessive, and unfair. The following graph presents the required Pt reduction percentage for each of the states and the District of Columbia. As shown, New York State would have to remove approximately 35 percent of its existing Pt loading to achieve the draft Pt allocation of 520,000 lbs/year.

It is the Coalition's understanding that the USC has estimated that the agriculture allocations could not be met even if 50% of the existing farms stopped farming and allowed their lands to go fallow and if the number of farm animals currently being raised at Confined Animal Feeding Operations (CAFOs) and smaller Animal Feeding Operations (AFOs) located within the New York portion of the Bay watershed was reduced by 50%. Such measures would have dire impacts on food production and the State economy generally, and on other worthy environmental and sustainable agriculture initiatives, including specifically that food be locally grown where possible.

[See Figure 5 on page 17 of original comment letter 0746.1]

Because achievement of the Draft TMDL's required nutrient reductions cannot be achieved without putting a significant number of farms out of business, or driving municipalities either towards bankruptcy and/or ignoring more pressing environmental and other needs, it is not achievable. Because the allocation methodology used in the Draft TMDL is unachievable, its use to set the TMDL's allocations is arbitrary, capricious and an abuse of discretion.

[FN11] And because there seems to be an assumption that the industrial WWTPs can reach the same LOT as the municipal WWTPs. While the Southern Tier Bay TMDL Coalition does not accept this assumption, it is applied here for simplicity sake.

[FN12] For simplicity sake, the TMDL reductions are those specified in the Draft TMDL without subtracting the additional "reserve" amounts. If the Reserve amounts are subtracted from New York's allocated loads, then these allocations will be even more unachievable.

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0746.1.001.018

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

In keeping with EPA's past commitments, the TMDL must not include numeric nitrogen, phosphorus or sediment-related allocation for any sub-group of sources (i.e. WWTPs, AFOs and MS4s on the Point Source side and the various categories of Non-Point Source (NPS) land uses on the NPS side. Instead, just an aggregate allocation for all the Point Sources and another one for all the Non-Point Sources categories should be included. Further division of the final WLA should not occur until the next revision of the model is published in 2011. In keeping with this, Appendix Q must be removed from the TMDL.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Another aspect of the backstop allocations that EPA established for the nontidal jurisdictions of Pennsylvania, New York, and West Virginia is to make finer-scale allocations than those included in the Phase I WIPs provided by the nontidal jurisdictions. EPA stated in its November 4 and December 29, 2009, letters to the jurisdictions that it would do so by establishing individual and aggregate, rather than gross, WLAs and LAs for the nontidal jurisdictions if their Phase I WIPs did not provide adequate reasonable assurance. That finer-scale allocation sets individual WLAs for the significant municipal and industrial wastewater discharging facilities and sector-specific aggregate WLAs for stormwater, CAFOs, and nonsignificant municipal and industrial wastewater discharging facilities. EPA is establishing the finer-scale allocations to provide permit writers with enough information to issue and renew NPDES permits consistent with the Chesapeake Bay TMDL WLAs. Those allocations are at the same scale as those made to the tidal jurisdictions of Delaware, Maryland, Virginia, and the District of Columbia.

Appendix Q will not be removed from the TMDL. Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Comment ID 0763.001.004

Author Name: Child Laura

Organization: Otsego County, New York

the level of implementation desired by the EPA and required by the proposed TMDL will not significantly improve the

water quality of the Bay given New York's small contribution and distance from the Bay; now, therefore, be it

RESOLVED, that the Otsego County Board of Representatives strongly opposes the nutrient and sediment reduction goals for New York described in the current TMDL proposal as unrealistic, unaffordable and inequitable;

Response

Please refer to the response for comment 0080-cp.001.002.

Comment ID 0764.001.004

Author Name: Young Leroy

Organization: Pennsylvania Fish & Boat Commission (PFBC)

We commend both EPA and DEP for undertaking this huge but very important task. We support clean water for the fish, the Chesapeake Bay, and our citizens; however, we also favor approaches that fairly spread the responsibility to all of the parties that contribute nutrients to the Bay.

Response

Please refer to the response for comment 0246.1.001.004

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 22. WLA

Pages 2065 – 2176

22.0. WLA	Pages 2065 – 2067
22.1. MS4s	Pages 2067 – 2085
22.2. Industrial Discharge	Pages 2085 – 2100
22.3. CAFOs	Pages 2100 – 2117
22.4. SSOs	Pages 2117 – 2117
22.5. CSOs	Pages 2117 – 2126
22.6. NPDES Dischargers	Pages 2126 – 2129
22.7. Municipal Discharge	Pages 2129 – 2162
22.8. Stormwater	Pages 2162 – 2170
22.9. General/Miscellaneous	Pages 2170 – 2176

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

22 - WLA

Comment ID 0258.1.001.004

Author Name: Wells Wayne

Organization: Cameron Committee for a Safe Environment (CCSE)

There is a standing offer to any EPA staff to take a guided tour of the Dickson Corporation's CAFO areas of operation showing the ongoing pollution of a wetland and areas of field erosion currently polluting watershed streams in order to backup claims made in this commentary. An alternate offering of substantiating comments in the form of pictures and correspondence with NYDEC concerning soil erosion will be sent upon request.

It must be stated and fully understood that the above commentary is a micro-snapshot of only one problem in one county of NY. How widespread and typical this problem is I cannot say but this is one problem that contradicts NYDEC claims of exemplary oversight for a large farm CAFO/Sludge operation and is proof that, at least in this case, much is needed to be done. NY communities in the Chesapeake Bay watershed contain many good farmers who are conservationists and who, unlike the Dickson Corp., are to be applauded for the way in which they operate their farm businesses. Those farmers who are doing their part must not be punished by ill-crafted EPA directives because of the bad actors. Policies and solutions must be 'critical-thought' driven to serve and further the goal of a better environment for all and not as blunt instruments that will financially punish the well managed farms of New York state.

Response

Please refer to response to comment 0139.1.001.006

Comment ID 0467.1.001.033

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 48 Gap Analysis

The Authority agrees with the conclusion that four years into the Point Source Allocation Strategy, no gap should be anticipated.

Page 48 Contingencies

As stated in an earlier comment, point sources require program stability. As long as they are in the process of meeting the standards set for them in 2006, no change in those standards should be allowed and DEP should not be permitted to reduce their allocation to make up for a failure in another sector, such as the non-point source sector.

Response

EPA appreciates the comment. EPA's allocation applicable to WWTPs including the commenter has changed significantly based in part on receipt of a Final Phase I WIP from Pennsylvania, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLAs applicable to commenter. [Assuming no WWTP backstop] The TMDL process is intended to provide consistency and a degree of stability among the Bay states.

Comment ID 0497.1.001.011

Author Name: Hobbs Jack

Organization: Town of Amherst, Virginia

We object to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

The draft WIP in Virginia was insufficient to achieve the allocated loads or to demonstrate reasonable assurance. For this reason, in the draft TMDL EPA applied backstop allocations. Fortunately, the final VA WIP was much improved, and EPA consequently reduced or removed the backstops. EPA's assessment of the VA WIP can be found in Section 8.

Comment ID 0608.1.001.005

Author Name: Pallansch Karen

Organization: Virginia Sanitation Authority, City of Alexandria

We have also attached additional comments on the EPA's Draft TMDL by the Alexandria Sanitation Authority, along with the cities of Alexandria, Lynchburg, and Richmond. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0608.1] These joint comments are directed specifically at the WLAs required to accommodate total nitrogen, total phosphorus, and total suspended solids loads in discharges from combined sewer overflow (CSO) outfalls in Alexandria, Lynchburg, and Richmond, as well as discharges of captured combined sewer flow that is treated and discharged by the Alexandria Sanitation Authority, Lynchburg, and Richmond WWTPs. [See comment 419.1]

Response

This comment is redundant and is covered under responses herein.

Comment ID 0708.001.001

Author Name: Wernick R.

Organization:

A New York Times article (October 16, 3010) reports Shawn M. Garvin's recommendation to revoke the permit for the Spruce #1 Mine in West Virginia.

That recommendation must be put into practice and enforced. For too long under the administration of George W. Bush, the EPA bowed to pressure by the administration and "Big Coal" and its lobbyists. Revocation of the permit would prevent further environmental and social destruction caused by the permits allowing "mountain top removal" that already have been issued and implemented. Coal is not a clean fuel, and it is highly unlikely that it ever can be. But the destruction of thousands of acres of land and miles of streams is neither wise nor acceptable. Clean water, wildlife, and the health of communities all are connected.

May I add that if the EPA truly wishes to receive public comment on issues, it should amend its website to facilitate such comment. If this letter has been addressed to the wrong office, please forward it to the correct one.

Response

Thank you for your comment in response to EPA's NPDES mining program. However, the topic for this public comment period is the Bay TMDL so no additional comment is required.

22.1 - MS4S

Comment ID 0154-cp.001.009

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- The majority of properties in Gaithersburg were developed prior to 1985. The City only owns 10% of the land in the City limits and has no legal authority to force changes on privately owned property. Many areas, both public and private have existing conditions such as steep slopes and/or shallow storm drains which will make retrofits very expensive. The City has numerous streets with no public right-of-way beyond the pavement. The proposed retrofit requirement of 20% by 2017 is not financially feasible, and presents significant technical problems as well.

Response

EPA believes that retrofits are necessary to achieve the relevant allocations. Most robust stormwater programs should include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have

discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Comment ID 0169.1.001.028

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

Of all the source sectors covered by the TMDLs, none is affected more by the 2025 deadline than the urban runoff sector because much of the difficulty and cost of achieving the urban runoff load reductions is associated with retrofits independent of redevelopment. Historic re-development rates in the Occoquan watershed fall far short of those that would be needed to achieve the load reductions without forcing the localities to acquire the easements needed for the retrofits and assuming responsibility for retrofit installation and maintenance.

Response

While the TMDL does not specifically add any requirements for retrofitting, EPA agrees that some retrofitting will likely be necessary in order to meet the relevant TMDL allocations by 2025, and that those retrofits would need to occur at a rate that exceeds typical redevelopment. There are many ways to implement retrofits, including in existing public rights-of-way and incentivizing on private property. Options don't necessarily require municipalities to acquire easements, or undertake installation and maintenance.

Comment ID 0212.1.001.003

Author Name: Greenland Victoria

Organization: Arlington County, Department of Environmental Services, Virginia

Unfortunately, the dramatic hydrologic and hydraulic changes and resulting water quality impacts of nearly a century of development and drainage decisions that occurred in urban areas like Arlington County before the establishment of the NPDES stormwater program cannot be fully reversed. Arlington County recently initiated an extensive retrofitting program working with the nationally-recognized Center for Watershed Protection. However, the work to date indicates that retrofit potential and implementation timeframes will fall well short of Bay TMDL and MS4 permit requirements, even while providing important and needed water quality benefits.

Response

EPA appreciates the commitment of commenter towards environmental restoration. While the TMDL does not specifically require retrofitting, EPA believes that robust retrofitting programs are likely to be necessary to achieve the relevant allocations by 2025. State are working through their Watershed Implementation Plans implementing the TMDL to balance retrofit rates against other

actions in order to achieve allocations by 2025.

Comment ID 0265.1.001.011

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

The proposed backstop allocations reflect EPA's determination that Virginia's proposed allocations for the agriculture and onsite septic systems were too small in light of the absence of direct federal and state regulatory authority over these sectors. Although the urban runoff sectors gained additional allocations with the backstop, the gains are small and appear to reflect EPA's mistaken assumption that steep load reductions can be achieved by the urban runoff sector because this sector, unlike the agriculture and onsite septic system sectors, is subject to direct federal and state regulatory authority under the National Pollutant Discharge Elimination System (NPDES). However, this assumption fails to recognize the significant economic, technical and legal obstacles associated with controlling nutrient and sediment loads in urban runoff within an MS4 - particularly MS4s in coastal regions such as Hampton Roads - as well as the Localities' limited ability to require retrofits on private property.

Response

EPA does believe that some amount of urban retrofitting is necessary in order to achieve the necessary pollutant reductions, and that a robust MS4 program will include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Please see response to Comment 0067.001.009.

Comment ID 0265.1.001.013

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

Treatment of well over half of the urban land area in the Localities would require extensive retrofits of existing development, most of which would have to be implemented independent of re-development in order to have any hope of meeting EPA's 2025 deadline. This is because re-development rates in the Hampton Roads region do not even begin to approach the rates that would be needed to achieve the backstop allocations entirely through re-development between now and 2025. The Phase I and Phase II Localities own an average of thirteen and three percent, respectively, of the urban land that would have to be treated to achieve the backstop allocations. The remaining urban land is privately owned, and the Localities cannot compel private landowners to install retrofits in the absence of re-development requiring local land use approvals. Consequently, assuming for the sake of argument that they could meet the 2025 deadline, the Localities would have to acquire extensive easements through negotiation and condemnation for

the installation and maintenance of controls. Easement acquisition, in turn, would add billions of dollars and years to the implementation schedule. Further, much of the Locality-owned urban land is utilized for utility infrastructure such as water, sewer, telephone, and electric lines. Even if one assumes that it would be feasible to use this land for storm water controls, the cost of moving or constructing around the utility infrastructure would add hundreds of millions of dollars to the \$9.8 billion estimate and add years to the implementation schedule.

The foregoing analysis shows that controlling nutrient and sediment loads from urban runoff poses many of the same challenges and obstacles as controlling loads from agriculture and onsite septic systems. All three of these sectors will require extensive land-based controls on private property to achieve their respective allocations. EPA, Virginia, and the Localities cannot simply force private land owners to install controls in the absence of direct regulatory authority over the land owner (in the case of EPA and the State) or re-development requiring local approvals (in the case of the Localities). EPA appears to recognize the limits of its own authority over non-point source agriculture and onsite septic systems, but apparently refuses to recognize the limits on the Localities' authority over existing development. The Localities can acquire easements through negotiation or condemnation and install the controls themselves, but easement acquisition under these circumstances is extraordinarily time consuming and expensive.

In summary, it is apparent that EPA has wrongly assumed that the urban runoff sector allocations can be achieved by 2025 by virtue of federal and state regulatory authority over MS4s. In so doing, EPA has failed to recognize that in the absence of redevelopment requiring local land use approvals, the Localities have no more regulatory authority to require retrofits of existing development than either EPA or the Commonwealth of Virginia. Therefore, even if one assumes that the Localities can afford to spend well over one billion dollars each year between now and 2025 (which they cannot), EPA has not and cannot provide reasonable assurance that the James River basin backstop urban runoff allocations can be attained by 2025.

Having increased the agriculture and onsite septic system sector allocations to provide reasonable assurance that these allocations can be attained, it is incumbent upon EPA to increase the urban runoff sector allocations as well to account for the limits on federal, state, and local regulatory authority over existing development as well as the immense cost and difficulty associated with installing urban runoff retrofits.[FN 6] Increased allocations for the urban runoff sector would contribute toward providing reasonable assurance that the sector's allocations can be attained at some point in the future by reducing the extent of the retrofits that would be required to attain the allocations. As discussed below in Section VI, the correct starting point for developing increased allocations for the urban runoff sector would be for EPA to use the James River allocations in the 2005 Tributary Strategies rather than the allocations proposed in the TMDL. The urban runoff sector allocations derived from the Tributary Strategies would have to be significantly higher than those currently proposed by EPA if the Localities are to have any chance of achieving their allocations by 2025. Even with significantly higher allocations, however, it is unlikely that the Localities and private property owners would be able to implement all of the required retrofits by EPA's 2025 deadline because in addition to installing retrofits on public land and requiring retrofits on private land as redevelopment occurs, the Localities would also have to acquire easements to install retrofits on private land that was not undergoing re-development. As explained in these comments, easement acquisition is an extraordinarily time-consuming and expensive process.

[FN 6] "Reasonable assurance" is not required by or defined in federal law; however, since EPA has chosen to employ reasonable assurance as the driver for assigning allocations among the source sectors, it is required to apply reasonable assurance among the sectors in a reasoned and consistent manner. The Localities submit that EPA has acted arbitrarily by proposing allocations for the urban runoff sector that do not account for the same factors (i.e., limited

regulatory authority and economic feasibility associated with land-based controls) that it used to propose allocations for the agriculture and onsite septic system sectors. In fact, the much higher cost and greater difficulty of controlling nutrient and sediment loads from the urban runoff sector compared to the agriculture sector strongly suggests that on a pound-for-pound basis, the load reductions required of the urban runoff sector should be far less than the load reductions required of the agriculture sector. An analysis of the James River sector allocations shows that the level of effort required of the agriculture sector to achieve its allocations is considerably less than the level of effort required of the urban runoff sector to achieve its allocations.

Response

EPA believes that robust MS4 programs are necessary to achieve the relevant allocations, and most should include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

EPA points out that achieving allocations will be challenging for all sectors, and increasing an allocation in one area necessitates a decrease in another area. EPA believes that current allocations reflect a reasonable balance of considerations among all sectors contributing nutrients and sediment in the Bay Watershed. EPA also notes that states have the option to shift the balance of implementation responsibility among sectors as long as the total allocations are achieved.

Comment ID 0293.1.001.008

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

In addition, EPA has not clearly addressed the distinction between TMDL WLAs and MS4 effluent limitations. Consistent with EPA's existing regulations and guidance, the Bay TMDL should clearly state that MS4s are not subject to numeric effluent limitations. Under section 402(p) of the CWA, the legal compliance standard for MS4s is based on a "maximum extent practicable" ("MEP") level of effort. Here, given the extremely stringent proposed allocations, this should be made clear in the TMDL.

Response

MS4 permits must include provisions necessary to comply with the water quality objectives of the Clean Water Act, including implementation of wasteload allocations. Where the NPDES authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that, where feasible, the NPDES permitting authority exercise its discretion to include numeric effluent limitations as necessary to meet water quality standards as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

Comment ID 0298.2.001.005

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

Although the proposed backstop allocations reflect the difficulty of achieving significant load reductions from the agriculture and onsite septic sectors, they fall far short of reflecting the difficulty of achieving such reductions from the urban runoff sector. EPA appears to simply assume that the reductions can be achieved because MS4s are subject to federal and state permitting authority under the NPDES, but this assumption fails to recognize that the City owns, on average, only about 35% of the impervious land area within its borders. Therefore, most of the retrofits needed to achieve the load reductions will have to be implemented on private lands over which the Localities have no control in the absence of new development or redevelopment requiring local land use approvals. Eminent domain costs resulting from these requirements will be substantial.

Response

Please refer to comment 0067.1.001.009

Comment ID 0316.001.006

Author Name: Bulova Sharon

Organization: County of Fairfax, Virginia

Finally, in developing the Chesapeake Bay TMDL, we must all remember that the current conditions in our urbanized watersheds developed over many decades and that most of the land is privately owned. Plans and programs developed under the current initiatives need to take into account what can be achieved by localities, given their unique constraints over the short and long-term. There are significant environmental benefits to redevelopment and transit-oriented development, as well as adverse environmental impacts associated with sprawl; and beneficial development and redevelopment projects should not be hindered as a result of this effort. If the costs of these stormwater management efforts are made to be too high, or if the stormwater management standards effectively become unattainable, these beneficial redevelopment efforts will be hindered. A punitive focus on MS4 permits could ultimately prove detrimental to water quality by preventing development and redevelopment in already urbanized areas and driving new development into rural areas. Improvements can and should be made in how urban and suburban stormwater is managed, but they must be made in a sustainable manner by working collectively towards a common goal.

Response

EPA agrees that redevelopment and transit-oriented development can provide environmental benefits when done correctly. EPA does not believe that well-formulated stormwater regulations are inconsistent with these types of development or the inherent goals, nor do they encourage sprawl.

Comment ID 0331.1.001.007

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

I. INFORMATION REGARDING CITYOF VIRGINIA BEACH, VIRGINIA

A. The City of Virginia Beach is both an urban and rural municipality located at the mouth of the Chesapeake Bay. The City of Virginia Beach consists of approximately 248 square miles, with a population of approximately 433,500. Only the urban northern portion of the City is located in the Chesapeake Bay watershed. Significant portions of the City, including its rural southern portion, are not located in the Watershed, as portions of the City drain southerly and to the Atlantic Ocean.

B. City MS4 Program-The City is considered a large MS4 locality and its stormwater is regulated by the MS4 permit issued to the City. That permit is now approximately nine (9) years old, and was originally issued in March 2001.

C. Factors Affecting Stormwater Control in City-The City of Virginia Beach is in a unique and untenable situation regarding its ability to meet any required allocations. There is very little agriculture in the City's Chesapeake Bay Watershed. The City does not operate any wastewater treatment plants (Hampton Roads Sanitation District) and, as a result of a comprehensive program of extending public sewer facilities to properties in the Chesapeake Bay Watershed, there are very few private septic systems left in the Chesapeake Bay Watershed. As a result, the City is forced to realize all of its reductions in the urban stormwater arena, where any reductions are the most costly and the least efficient.

Response

EPA appreciates the comment, and the acknowledgment that MS4 programs will be notable players in implementation of nutrient and sediment reductions in the watershed. EPA believes there are a number of reasonable solutions for recognizing reductions in urban stormwater.

Comment ID 0394.001.007

Author Name: Heavner Brad

Organization: Environment America et al.

Stormwater. As development continues to march across the open spaces of the Chesapeake Bay region, nutrient pollution from stormwater has been increasing. We cannot let that continue. It will take enormous effort to ensure that polluted runoff decreases at the same time that the construction industry rebounds.

One of the most important tools is Municipal Separate Storm Sewer System (MS4) permits. States issuing these permits should require that all MS4 and other stormwater permits incorporate the wasteload allocation numbers from the TMDL. Also, as MS4 permits are required of more jurisdictions and the requirements of the permits become stricter, we need to make sure there are significant consequences for failing to comply with the terms of those permits.

Response

EPA appreciates the comment, and the acknowledgment that MS4 programs will be notable players in implementation of nutrient and sediment reductions in the watershed. EPA also agrees that it is a requirement of the Clean Water Act to include appropriate provisions in permits to implement relevant wasteload allocations, and that those provisions must be enforceable and enforced.

Comment ID 0410.1.001.012

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

If the MS4 jurisdictions are to be expanded to include the entire Maryland Bay watershed, and if the impervious accounting requirements are to be imposed on the MS4 Phase II jurisdictions as well as the non-MS4 areas, then sufficient time to develop the base impervious surfaces, stormwater facility treatment areas, land uses and right-of-way would be necessary. Our previous MS4 Phase I permit allowed 5 years to meet the impervious accounting requirement before imposing retrofit percentages.

Response

EPA appreciates the comment.

Comment ID 0418.1.001.021

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

ii. Retrofits

Despite the pressing need to reduce stormwater loadings from areas of existing imperviousness, only Maryland and the District of Columbia WIPs contain commitments to undertake stormwater retrofit programs. Both jurisdictions, in their express preference for green infrastructure management practices, provide clear models for the other Bay States to emulate. Even so, and as NRDC has elsewhere expressed, EPA must commit to engaging with these two jurisdictions to ensure that retrofits result in meaningful water quality gains, are implemented on schedule and according to watershed prioritization, and are pursued to the maximum extent technically feasible.

Virginia and Pennsylvania, in contrast, present no definite retrofit policies or plans in their WIPs. Virginia's aspirational consideration of cost-share structures to fund BMPs and BMP retrofits has potential to reduce the fiscal implications of a broad retrofit policy, but without a commitment or detailed revenue and organizational scheme is effectively meaningless. As EPA has noted in its critique of Pennsylvania's WIP, restrictions on stormwater generation from future development is not an effective retrofit policy; unfortunately, the Commonwealth has made no effort to create a meaningful retrofit program. We applaud EPA's commitment to base the backstop allocations for both Virginia and Pennsylvania on a requirement that 50% of urban MS4 lands meet aggressive performance standard through retrofit/redevelopment; 50% of unregulated land treated as regulated, so that 25% of unregulated land meets aggressive performance standard.[FN 34] However, we strongly encourage the Agency to pursue commitments from both states to undertake strong retrofit programs, with specific commitments and policies, as part of their final Phase I WIPs.

In exercising its continuing oversight responsibilities and authority, EPA must ensure that measures to reduce impacts from existing imperviousness are implemented consistently across the Bay watershed. The retrofit expectations conveyed by the Agency in its "Urban Stormwater Approach" memorandum should serve as a baseline not just for the states in the region, but for EPA's own review and approval of new or renewed MS4 permits across the watershed. [FN 35] MS4 permits must contain locally relevant requirements to develop prioritized, defensible, and achievable retrofit programs, tied to performance standards and enforceable compliance schedules.

[FN 34] Draft TMDL at pp. v, vi.

[FN 35] US EPA, Urban Stormwater Approach for the Mid-Atlantic Region and Chesapeake Bay Watershed, July 2010, at 3-4.

Response

EPA appreciates the comment, and will continue to work with state programs both through WIP development and review and permit oversight processes, to develop and enhance meaningful stormwater retrofit provisions.

Comment ID 0435.1.001.010

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

EPA Backstop - 50% Retrofit of Urban Lands

Comment:

The EPA has proposed a backstop to retrofit 50% of urban lands to address discrepancies between the WIP and the WLA. Being a fully developed urban locality, it would be unrealistic for the City to meet the EPA backstops of retrofitting 50% of its urban land. The City has a total area of 15,340 acres of land, of which only 2,538 acres are municipally owned lands, according to data provided by the Norfolk Real Estate Assessor's Office. Assuming it is feasible to install BMPs on all municipal lands, the City could only retrofit 16.5% of our urban land. The remaining 33.5% of urban land

requiring retrofit is privately owned.

The City does not have the legal authority to require private property owners to install or retrofit BMPs unless the property owner decides to develop or redevelop their land, triggering local land use approvals. In order to meet the 50% retrofit requirements, the City would have to buy private property, offer monetary incentives or take on additional maintenance requirements in order to retrofit BMPs, further stressing the existing storm water revenue. Land acquisition and condemnation is expensive and takes time.

Recommendations:

The EPA has stated that the backstops will only apply if the Commonwealth of Virginia fails to provide concrete details on how they plan to implement the various programs described in the Draft WIP. The City suggests that instead of introducing back stops for the Virginia WIP to include the 50% urban land retrofit, the EPA consider adopting nutrient reductions based on the Tributary Strategies. Furthermore, we recommend extending the deadline for final development of the Phase I WIP to May 2011 to allow the Commonwealth of Virginia time to provide a more detailed and binding WIP as described above.

Response

EPA does believe that some amount of urban retrofitting is necessary in order to achieve the necessary pollutant reductions, and that a robust MS4 program will include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Please see response to comment 0067.001.009.

Comment ID 0435.1.001.015

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Allocations

The EPA James River basin backstop allocations for the urban runoff sector are higher than those assigned in the Draft WIP because the EPA does not consider nutrient credit exchange. However, with an average reduction of a 54 percent reductions in phosphorus required to achieve the backstop allocation, it is still beyond a level that is practicable given Norfolk's hydrology, geology and available commercial technologies. To achieve the 54 percent phosphorus reduction, the City would be required to treat approximately 65 percent of the impervious land area with structural best management practices (BMP).

The City owns approximately 2,500 acres of land within our boundaries. These holdings contain only 16.5 percent of the required impervious land area that would require treatment to achieve the EPA backstop. The remaining reductions

would need to be achieved with retrofits on private land.

Under current state law, localities do not have the authority to compel private land owners to retrofit storm water treatment in the absence of development or redevelopment. Consequently, the City would have to purchase the land needed for easements. Land acquisition is an expensive and time consuming process that will add greatly to the cost and time required to achieve the reductions. Current state law limits localities from condemnation except for very specific purposes. These laws will also need to be amended in order to implement these programs.

Response

EPA believes that robust MS4 programs are necessary to achieve the relevant allocations, and most should include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Comment ID 0436.1.001.011

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

The proposed backstop allocations reflect EPA's determination that Virginia's proposed allocations for the agriculture and onsite septic systems were too small in light of the absence of direct federal and state regulatory authority over these sectors. Although the urban runoff sectors gained additional allocations with the backstop, the gains are small and appear to reflect EPA's mistaken assumption that steep load reductions can be achieved by the urban runoff sector because this sector, unlike the agriculture and onsite septic system sectors, is subject to direct federal and state regulatory authority under the National Pollutant Discharge Elimination System (NPDES). However, this assumption fails to recognize the significant economic, technical and legal obstacles associated with controlling nutrient and sediment loads in urban runoff within an MS4 - particularly MS4s in coastal regions such as Hampton Roads - as well as the Localities' limited ability to require retrofits on private property.

Response

Please refer to response to comment # 0389.1.001.020.

Comment ID 0436.1.001.013

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

Treatment of well over half of the urban land area in the Localities would require extensive retrofits of existing

development, most of which would have to be implemented independent of re-development in order to have any hope of meeting EPA's 2025 deadline. This is because re-development rates in the Hampton Roads region do not even begin to approach the rates that would be needed to achieve the backstop allocations entirely through re-development between now and 2025. The Phase I and Phase II Localities own an average of thirteen and three percent, respectively, of the urban land that would have to be treated to achieve the backstop allocations. The remaining urban land is privately owned, and the Localities cannot compel private landowners to install retrofits in the absence of re-development requiring local land use approvals. Consequently, assuming for the sake of argument that they could meet the 2025 deadline, the Localities would have to acquire extensive easements through negotiation and condemnation for the installation and maintenance of controls. Easement acquisition, in turn, would add billions of dollars and years to the implementation schedule. Further, much of the Locality-owned urban land is utilized for utility infrastructure such as water, sewer, telephone, and electric lines. Even if one assumes that it would be feasible to use this land for storm water controls, the cost of moving or constructing around the utility infrastructure would add hundreds of millions of dollars to the \$9.8 billion estimate and add years to the implementation schedule.

The foregoing analysis shows that controlling nutrient and sediment loads from urban runoff poses many of the same challenges and obstacles as controlling loads from agriculture and onsite septic systems. All three of these sectors will require extensive land-based controls on private property to achieve their respective allocations. EPA, Virginia, and the Localities cannot simply force private land owners to install controls in the absence of direct regulatory authority over the land owner (in the case of EPA and the State) or re-development requiring local approvals (in the case of the Localities). EPA appears to recognize the limits of its own authority over non-point source agriculture and onsite septic systems, but apparently refuses to recognize the limits on the Localities' authority over existing development. The Localities can acquire easements through negotiation or condemnation and install the controls themselves, but easement acquisition under these circumstances is extraordinarily time consuming and expensive.

In summary, it is apparent that EPA has wrongly assumed that the urban runoff sector allocations can be achieved by 2025 by virtue of federal and state regulatory authority over MS4s. In so doing, EPA has failed to recognize that in the absence of redevelopment requiring local land use approvals, the Localities have no more regulatory authority to require retrofits of existing development than either EPA or the Commonwealth of Virginia. Therefore, even if one assumes that the Localities can afford to spend well over one billion dollars each year between now and 2025 (which they cannot), EPA has not and cannot provide reasonable assurance that the James River basin backstop urban runoff allocations can be attained by 2025.

Having increased the agriculture and onsite septic system sector allocations to provide reasonable assurance that these allocations can be attained, it is incumbent upon EPA to increase the urban runoff sector allocations as well to account for the limits on federal, state, and local regulatory authority over existing development as well as the immense cost and difficulty associated with installing urban runoff retrofits.[FN 6] Increased allocations for the urban runoff sector would contribute toward providing reasonable assurance that the sector's allocations can be attained at some point in the future by reducing the extent of the retrofits that would be required to attain the allocations. As discussed below in Section VI, the correct starting point for developing increased allocations for the urban runoff sector would be for EPA to use the James River allocations in the 2005 Tributary Strategies rather than the allocations proposed in the TMDL. The urban runoff sector allocations derived from the Tributary Strategies would have to be significantly higher than those currently proposed by EPA if the Localities are to have any chance of achieving their allocations by 2025. Even with significantly higher allocations, however, it is unlikely that the Localities and private property owners would be able to implement all of the required retrofits by EPA's 2025 deadline because in addition to installing retrofits on public land

and requiring retrofits on private land as redevelopment occurs, the Localities would also have to acquire easements to install retrofits on private land that was not undergoing re-development. As explained in these comments, easement acquisition is an extraordinarily time-consuming and expensive process.

[FN 6] "Reasonable assurance" is not required by or defined in federal law; however, since EPA has chosen to employ reasonable assurance as the driver for assigning allocations among the source sectors, it is required to apply reasonable assurance among the sectors in a reasoned and consistent manner. The Localities submit that EPA has acted arbitrarily by proposing allocations for the urban runoff sector that do not account for the same factors (i.e., limited regulatory authority and economic feasibility associated with land-based controls) that it used to propose allocations for the agriculture and onsite septic system sectors. In fact, the much higher cost and greater difficulty of controlling nutrient and sediment loads from the urban runoff sector compared to the agriculture sector strongly suggests that on a pound-for-pound basis, the load reductions required of the urban runoff sector should be far less than the load reductions required of the agriculture sector. An analysis of the James River sector allocations shows that the level of effort required of the agriculture sector to achieve its allocations is considerably less than the level of effort required of the urban runoff sector to achieve its allocations.

Response

EPA believes that robust MS4 programs are necessary to achieve the relevant allocations, and most should include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

EPA points out that achieving allocations will be challenging for all sectors, and increasing an allocation in one area necessitates a decrease in another area. EPA believes that current allocations reflect a reasonable balance of considerations among all sectors contributing nutrients and sediment in the Bay Watershed. EPA also notes that states have the option to shift the balance of implementation responsibility among sectors as long as the total allocations are achieved. Also please see response to comment # 0389.1.001.020.

Comment ID 0463.1.001.003

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

3, Non-Structural BMPs: Chesapeake Bay Preservation Act and MS4 Permit Program

The City is a Phase II MS4 stormwater community. The permit requires a lot of non-structural BMPs under the Six Minimum Controls. The WIP should consider these as "BMPs" for modeling and pollutant reduction purposes or consider halting these requirements. Uniform removal efficiencies should be assessed across the six states and the District. The Tier 2 element of Section 7.2 Accounting for Growth suggests that these existing practices will be built upon in the Phase II WIP process. We agree that these should be accounted for, but strongly suggest that these

existing programs be assigned nutrient and sediment reductions soon as possible. The costs of new permit requirements, including non-structural BMPs and accounting, add to the financial burden placed on localities. Consideration of existing practices and enhanced implementation of non-structural practices should occur prior to requiring localities to implement new, more costly practices such as the backstop measure of urban stormwater retrofits.

Response

EPA can and will consider any set of controls, practices and management measures for which a reasonable pollutant reduction/management can be quantified. The model currently includes a number of practices for which quantification protocols have been developed. EPA intends to develop protocols for additional measures as stakeholders indicate a need, and where robust performance data can be provided.

EPA does not believe the necessary pollutant reductions will be achieved without some level of retrofitting, but certainly encourages all implementers to consider the least expensive solutions first.

Comment ID 0463.1.001.007

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

6. MS4 Allocation

During Phase I of this process, EPA has provided an aggregate allocation for urban stormwater covered an MS4 permit, while Phase II will provide individual allocations for MS4 permits. EPA has not clearly addressed the distinction between TMDL WLAs and MS4 effluent limitations. Consistent with EPA's existing regulations and guidance, the Bay TMDL should clearly state that MS4s are not subject to numeric effluent limitations. Under section 402(p) of the Clean Water Act, the legal compliance standard for MS4s is based on a "maximum extent practicable" ("MEP") level of effort. Here, given the extremely stringent proposed allocations, this should be made clear in the TMDL.

Response

Wasteload allocations are the pollutant loads assigned to a discharge or group of discharges by a TMDL. Effluent limitations are the articulation of the relevant WLAs (and other objectives) as enforceable permit requirements.

MS4 permits must include provisions necessary to comply with the water quality objectives of the Clean Water Act, including implementation of wasteload allocations. Where the NPDES authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that, where feasible, the NPDES permitting authority exercise its discretion to include numeric effluent limitations as necessary to meet water quality standards as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

Comment ID 0496.1.001.008

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

The proposed backstop allocations reflect EPA's determination that Virginia's proposed allocations for the agriculture and onsite septic systems were too small in light of the absence of direct federal and state regulatory authority over these sectors. Although the urban runoff sectors gained additional allocations with the backstop, the gains are small and appear to reflect EPA's mistaken assumption that steep load reductions can be achieved by the urban runoff sector because this sector, unlike the agriculture and onsite septic system sectors, is subject to direct federal and state regulatory authority under the National Pollutant Discharge Elimination System (NPDES). However, this assumption fails to recognize the significant economic, technical and legal obstacles associated with controlling nutrient and sediment loads in urban runoff within an MS4 - particularly MS4s in coastal regions such as Hampton Roads - as well as the Localities' limited ability to require retrofits on private property.

Response

Please see response to comment # 0389.1.001.020.

Comment ID 0496.1.001.010

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

Treatment of well over half of the urban land area in the Localities would require extensive retrofits of existing development, most of which would have to be implemented independent of re-development in order to have any hope of meeting EPA's 2025 deadline. This is because re-development rates in the Hampton Roads region do not even begin to approach the rates that would be needed to achieve the backstop allocations entirely through re-development between now and 2025. The Phase I and Phase II Localities own an average of thirteen and three percent, respectively, of the urban land that would have to be treated to achieve the backstop allocations. The remaining urban land is privately owned, and the Localities cannot compel private landowners to install retrofits in the absence of re-development requiring local land use approvals. Consequently, assuming for the sake of argument that they could meet the 2025 deadline, the Localities would have to acquire extensive easements through negotiation and condemnation for the installation and maintenance of controls. Easement acquisition, in turn, would add billions of dollars and years to the implementation schedule. Further, much of the Locality-owned urban land is utilized for utility infrastructure such as water, sewer, telephone, and electric lines. Even if one assumes that it would be feasible to use this land for storm water controls, the cost of moving or constructing around the utility infrastructure would add hundreds of millions of dollars to the \$9.8 billion estimate and add years to the implementation schedule.

The foregoing analysis shows that controlling nutrient and sediment loads from urban runoff poses many of the same challenges and obstacles as controlling loads from agriculture and onsite septic systems. All three of these sectors will

require extensive land-based controls on private property to achieve their respective allocations. EPA, Virginia, and the Localities cannot simply force private land owners to install controls in the absence of direct regulatory authority over the land owner (in the case of EPA and the State) or re-development requiring local approvals (in the case of the Localities). EPA appears to recognize the limits of its own authority over non-point source agriculture and onsite septic systems, but apparently refuses to recognize the limits on the Localities' authority over existing development. The Localities can acquire easements through negotiation or condemnation and install the controls themselves, but easement acquisition under these circumstances is extraordinarily time consuming and expensive.

In summary, it is apparent that EPA has wrongly assumed that the urban runoff sector allocations can be achieved by 2025 by virtue of federal and state regulatory authority over MS4s. In so doing, EPA has failed to recognize that in the absence of redevelopment requiring local land use approvals, the Localities have no more regulatory authority to require retrofits of existing development than either EPA or the Commonwealth of Virginia. Therefore, even if one assumes that the Localities can afford to spend well over one billion dollars each year between now and 2025 (which they cannot), EPA has not and cannot provide reasonable assurance that the James River basin backstop urban runoff allocations can be attained by 2025.

Having increased the agriculture and onsite septic system sector allocations to provide reasonable assurance that these allocations can be attained, it is incumbent upon EPA to increase the urban runoff sector allocations as well to account for the limits on federal, state, and local regulatory authority over existing development as well as the immense cost and difficulty associated with installing urban runoff retrofits.[FN6] Increased allocations for the urban runoff sector would contribute toward providing reasonable assurance that the sector's allocations can be attained at some point in the future by reducing the extent of the retrofits that would be required to attain the allocations. As discussed below in Section VI, the correct starting point for developing increased allocations for the urban runoff sector would be for EPA to use the James River allocations in the 2005 Tributary Strategies rather than the allocations proposed in the TMDL. The urban runoff sector allocations derived from the Tributary Strategies would have to be significantly higher than those currently proposed by EPA if the Localities are to have any chance of achieving their allocations by 2025. Even with significantly higher allocations, however, it is unlikely that the Localities and private property owners would be able to implement all of the required retrofits by EPA's 2025 deadline because in addition to installing retrofits on public land and requiring retrofits on private land as redevelopment occurs, the Localities would also have to acquire easements to install retrofits on private land that was not undergoing re-development. As explained in these comments, easement acquisition is an extraordinarily time-consuming and expensive process.

[FN6] "Reasonable assurance" is not required by or defined in federal law; however, since EPA has chosen to employ reasonable assurance as the driver for assigning allocations among the source sectors, it is required to apply reasonable assurance among the sectors in a reasoned and consistent manner. The Localities submit that EPA has acted arbitrarily by proposing allocations for the urban runoff sector that do not account for the same factors (i.e., limited regulatory authority and economic feasibility associated with land-based controls) that it used to propose allocations for the agriculture and onsite septic system sectors. In fact, the much higher cost and greater difficulty of controlling nutrient and sediment loads from the urban runoff sector compared to the agriculture sector strongly suggests that on a pound-for-pound basis, the load reductions required of the urban runoff sector should be far less than the load reductions required of the agriculture sector. An analysis of the James River sector allocations shows that the level of effort required of the agriculture sector to achieve its allocations is considerably less than the level of effort required of the urban runoff sector to achieve its allocations.

Response

Please see response to comment # 0389.1.001.020.

Comment ID 0528.1.001.004

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

Although the proposed backstop allocations reflect the difficulty of achieving significant load reductions from the agriculture and onsite septic sectors, they fall far short of reflecting the difficulty of achieving such reductions from the urban runoff sector. EPA appears to simply assume that the reductions can be achieved because MS4s are subject to federal and state permitting authority under the NPDES, but this assumption fails to recognize that the Localities own, on average, only about 20 percent of the land area within their respective jurisdictions. Therefore, most of the retrofits needed to achieve the load reductions will have to be implemented on private lands over which the Localities have no control in the absence of new development or redevelopment requiring local land use approvals. Eminent domain costs resulting from these requirements will be substantial.

Response

EPA does believe that some amount of urban retrofitting is necessary in order to achieve the necessary pollutant reductions, and that a robust MS4 program will include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land. Please see response to Comment 0067.001.009.

Comment ID 0746.1.001.033

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Creation of New MS4s/Extension of Boundaries of the Current MS4s

The creation of new MS4s and the extension of the geographic boundaries of the existing MS4s would result in a large financial and regulatory burden being placed on small communities, with little to no measurable environmental benefits, beyond those currently obtained with existing regulatory structures and requirements. With this approach, smaller municipalities would be designated as MS4s. The subsequent reduction in pollutant loadings from stormwater discharges in these new and expanded MS4s would be only a small portion of the overall load from urban runoff sources in New York's portion of the Bay watershed, which in turn is a small portion of the overall nutrient loading to the Bay.

5. More Stringent Design Standards for Existing MS4s

More stringent design standards for stormwater management facilities, such as enhanced phosphorus removal requirements, would act to increase development costs and would act to increase the sizing, costs, and complexity of stormwater management practices. This would represent another hurdle to the growth/redevelopment of a MS4 community.

A requirement for the retrofitting of existing stormwater discharges with structural treatment practices would place an immense financial burden upon municipalities, with little benefit in regards to nutrient reduction. The draft TMDL's Backstop allocations would require 50 percent of the expanded urban MS4 lands to meet aggressive performance standards through retrofit/redevelopment. The NYSDEC has estimated an associated cost of \$1 to \$6 billion to accommodate this. The cost-effectiveness of this requirement would be non-existent, given the limited nutrient reduction achievable.

In regards to MS4s within the Bay watershed, the requirement for the retrofitting of existing stormwater discharges should not automatically be imposed upon an MS4. Nutrient loads from MS4s within the watershed are only a small portion of the overall loads to the Bay. Furthermore, the ratio of cost (\$) per lb of nutrients removed is exceedingly high for urban stormwater. Simply, removing nutrients from urban stormwater via storm system improvements most likely is not the most cost effective means to reducing the overall nutrient load to the Bay.

Response

Creation of New MS4s/Extension of Boundaries of the Current MS4s:

The CWA and the NPDES regulations allow for EPA and NPDES authorized States to designate, additional stormwater discharges for regulation. See 40 CFR 122.26 (a)(9)(i)(C), (a)(9)(i)(D), (b)(4)(iii), (b)(7)(iii), (b)(1 S)(ii) and I 22.32(a)(2). EPA has become concerned that NPDES authorities have generally not adequately considered exercising these authorities to designate for NPDES permitting storm water discharges that are currently not required to obtain permit coverage but that are significant enough to be identified in the load allocation component of a TMDL. Accordingly, EPA encourages permitting authorities to consider designation of stormwater sources in situations where coverage under NPDES permits would afford a more effective mechanism to reduce pollutants in stormwater discharges than available nonpoint source control methods. With respect to EPA's backstop allocations for stormwater, please see response to comment # 0067.1.001.009.

EPA has not proposed the creation of new MS4s nor the extension of MS4 boundaries for existing MS4s. EPA does believe that currently unpermitted stormwater discharges will need to be more effectively controlled, including through the designation of some of those discharges for permitting. However, the MS4 program is only one of several options to achieve this. State NPDES authorities may choose to utilize this option. To date, the states proposing to extend stormwater regulations to additional discharges are considering the use of state-wide rules to impose standards on new and redevelopment projects, not the extension of MS4 programs.

More Stringent Design Standards for Existing MS4s:

EPA has proposed neither the use of design standards nor the use of enhanced phosphorus removal (as the term is typically used) for municipal stormwater discharges. In fact, as a general approach, EPA does not believe that these are the most effective frameworks.

EPA does believe that stormwater discharges should be subject to more specific and stringent performance standards, but does not believe that they will increase development costs. In fact, EPA believes that the more effective stormwater controls, often termed green infrastructure, conservation design, and/or runoff reduction, have been demonstrated to be no more expensive than traditional stormwater management approaches.

EPA does believe that some amount of urban retrofitting is necessary in order to achieve the necessary pollutant reductions. However, where state programs propose solutions that can meet the overall wasteload allocations EPA will not automatically impose backstop retrofit requirements on MS4s. The backstop framework is one logical algorithm to achieve the allocations, but not the only one. EPA continues to encourage states to develop the frameworks that will work best for their jurisdictions' sets of unique circumstances.

Comment ID 0766.001.005

Author Name: Schafer Christa

Organization: Delaware County Board of Supervisors

OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

WHEREAS, EPA allocations would dictate even the smallest population centers to be classified as an MS-4, a stormwater classification that would require those communities to spend millions of dollars to treat stormwater for a relatively small amount of nutrient reduction.

Response

Neither EPA (nor the States through their final WIPs) are requiring through the TMDL that all population centers currently not required to obtain an NPDES be designated for MS4 permit coverage. EPA does acknowledge, however, that waste load allocations regarding stormwater sources do include sources that are not currently required to obtain an NPDES permit sources. Any specific designation would need to follow the existing federal NPDES regulatory designation process.

22.2 - INDUSTRIAL DISCHARGE

Comment ID 0067.1.001.005

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

As indicated in our compliance plan and schedule, with the process and operational changes already underway at the GTP Facility, coupled with our existing treatment processes, GTP believes that it will be able to achieve compliance with the TN cap load limit proposed in Pennsylvania WIP and set forth in DEP's March 2010 §92.8a notice.

Response

EPA acknowledges the comment.

Comment ID 0067.1.001.006

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

The TP Cap is a bigger challenge - not because we are a large contributor of phosphorus, but rather because our phosphorus loadings are highly variable and compared to water volume are relatively low. We set forth in our plan a 15-step process to achieve the target phosphorus loadings, and are currently at step 6 - having completed jar tests and design work, and having submitted to DEP plans for modifications to our treatment plant that we are hopeful will allow us to meet the cap load. We are scheduled to proceed with those treatment plant modifications upon plan approval from DEP, with the target of completing construction within 11-13 weeks from approval.

Response

EPA acknowledges the comment.

Comment ID 0218.1.001.006

Author Name: Wright Ronald

Organization: Borough of Everett Area Municipal Authority, Bedford County, Pennsylvania

More Draconian is that many of the industrial point sources are listed as having nutrient limits that appear to be arbitrary and are well below the limit of technology.

Response

Regarding the levels established in the TMDL, permit limits are written to either technology-based or water quality-based levels. Permits do not specify technologies to be used to meet permit limits, however, performance is established based on the application of best practicable control technology currently available (BPT) and by application of best available technology economically

achievable (BAT). In summary limits must be met by performance by well operated plants within industrial categories using the best control and treatment measures that are capable of being achieved.

Comment ID 0249.1.001.006

Author Name: Mixell John

Organization: Fort Littleton Wastewater

More Draconian is that many of the industrial point sources are listed as having nutrient limits that appear to be arbitrary and are well below the limit of technology.

Response

Please refer to the response to comment 0218.1.001.006.

Comment ID 0299.1.001.005

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

The prior owner of the Waynesboro facility added an anoxic biological nutrient removal (BNR) system at a significant capital cost in 1999, and thereafter enhanced the system's denitrification capabilities, with additional recirculation measures in 2003. The facility's wastewater treatment plant is equipped with a steam injection system to maintain temperatures favorable for nitrifying bacteria growth even during winter months. As a result of adding BNR and optimizing temperatures during the winter, during normal facility loading, the INVISTA-Waynesboro's WWTP reduces influent TN from an estimated annual average of 75 mg/L to 18 mg/L, an approximately 75 percent reduction. Thus, if the proposed backstops for significant POTW were to be applied to INVISTA-Waynesboro, or other similar industrial facilities during implementation of the WIP for the TMDL, even after the facility's substantial investment in BNR technology, we know based on available information that it is not technically feasible to meet a 4 mg/L annual average TN discharge limit.

INVISTA respectfully suggests that it may be premature for EPA to impose such limits on dischargers other than a category EPA has studied. As a textile fibers manufacturer, the wastewater discharge from INVISTA's Waynesboro WWTP is subject to federal effluent guideline limitations for the Organic Chemical Plastics and Synthetic Fibers ("OCPSF") standards, which are incorporated into the VPDES permit. EPA has not established technology-based effluent limitations for either nitrogen or phosphorus for an OCPSF facility. Were EPA to propose technology-based effluent guideline limitations for these parameters, it would undergo an extensive rulemaking effort that included gathering and evaluating detailed wastewater influent, treatment and discharge information from the dischargers - municipal, industrial, or otherwise - that it intended to regulate with such standards. EPA should similarly collect and evaluate information from dischargers in the federal effluent category prior to imposing a limitation developed for

POTWs that industries like INVISTA may or may not be able to meet with current technology.

Response

Please refer to response to comment 0067.001.009 which is response to this comment.

Comment ID 0319.1.001.001

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

Smurfit-Stone Container Corporation ("Smurfit-Stone") is one of the largest manufacturers of paperboard and paper-based packaging in the United States. It is also a global leader in the collection of recycled paper. Smurfit-Stone owns and operates 140 facilities across the country, including two paper mills, nine corrugated container (box) plants, two chip mills and one recycling facility in the Chesapeake Bay watershed states.

Smurfit-Stone's two paper mills are located in Virginia, one of which discharges directly to surface waters under an individual National Pollutant Discharge Elimination System ("NPDES") permit, and a second mill which discharges to a municipal wastewater treatment system. These mills will be affected by the United States Environmental Protection Agency's ("EPA") proposed Chesapeake Bay TMDL establishing effluent loadings for nutrients and sediments (75 Fed. Reg. 57776, September 22, 2010) (the "Proposed TMDL"). As a result of EPA's proposed TMDL, SSCC's mill that discharges directly to a tributary of the Chesapeake Bay would be forced to make extraordinary capital expenditures to reduce the nutrient concentrations in an effluent that is nutrient deficient. Further, there is no proven technology currently in use in the pulp and paper industry that is capable of consistently achieving the nutrient and Total Suspended Solids ("TSS") concentrations that would be required by the Proposed TMDL.

Municipal treatment systems that discharge to the Chesapeake Bay or its tributaries also will likely be forced to require the Smurfit-Stone facilities and other indirect dischargers to make nutrient and TSS reductions or fund expensive capital projects to install additional technology for compliance with EPA's Proposed TMDL. Smurfit-Stone facilities also may be subject to increased sewer rates as municipalities attempt to cover their costs of compliance with the Proposed TMDL. As a result of the foregoing, Smurfit-Stone has a direct and substantial interest in EPA's proposed action to establish TMDL mass loadings for nutrient and sediment contributors into the Chesapeake Bay watersheds.

Response

EPA appreciates that industrial process changes which will result in a long term benefit, do not come without an upfront cost. However, EPA's final TMDL is based on the Virginia WIP rather than EPA backstops for WWTPs.

Comment ID 0319.1.001.006

Author Name: Butler Nina

Organization: Smurfit-Stone Container Corporation

In conclusion, Smurfit-Stone recommends that EPA modify the Proposed TMDL to address the significant issues raised by the company, VMA and AF&PA, and prevent unintended consequences by:

--Eliminating the proposed effluent TSS loadings and revert to the existing permitted levels. The existing industrial TSS levels comprise less than 0.5 percent of the total load going to the Bay and downward adjustments to these existing levels will result in significant expense with little or no benefit;

Response

Thank you for your comments. EPA has reviewed the information presented by the commenter including that of the VA Manufacturer's Association and the American Forest and Paper Association. This comment suggests that certain industrial facilities are a minor contributor of TSS in the Bay and therefore EPA should not apply stringent TSS backstops to these facilities. EPA has modified (relaxed) the TSS WLAs for significant point sources. These limits are now based on the state plan. The final WLAs for these facilities can be found in Section 9.

Comment ID 0328.1.001.004

Author Name: Kimpton Steven

Organization: INVISTA

3. Backstop Allocations Can Not be One Size Fits All, but Instead Must Be Specific to the Characteristics of Each Industrial Facility

The Draft TMDL, as part of its high level and full backstop allocation descriptions, proposes to reduce the WLAs for industrial WWTPs to "a level where the reduction rates for significant industrial WWTPs by jurisdiction are equivalent to the significant municipal WWTP reduction from WIP to E3 (3 mg/l TN and 0.1 mg/l TP)." Further, unlike toxic pollutants such as metals, which require limits on concentration, nutrient limits should be load based and not concentration based. Applying concentration performance capability similar to a POTW upon an industrial facility is inappropriate. As we understand, the high level and full backstop allocations are based on the ability of publicly owned treatment works (POTW) to meet these limits through facility upgrades. However, the assumptions made and data evaluated for influent nitrogen and phosphorus concentrations and treatment and design capabilities at POTWs are not applicable to industrial operations, such as ours, that are generating and treating an entirely different wastewater stream.

INVISTA respectfully suggests that it may be premature for EPA to impose such nutrient and sediment limits on dischargers other than a category EPA has studied-such as POTWs. As a textile fibers manufacturer, the wastewater discharge from INVISTA-Seaford's WWTP is subject to federal effluent guideline limitations for the Organic Chemical Plastics and Synthetic Fibers ("OCPSF") standards, which are incorporated into the facility's current NPDES permit. EPA has not established technology-based effluent limitations for either nitrogen or phosphorus for an OCPSF facility.

Were EPA to propose technology-based effluent guideline limitations for these parameters, it would undergo an extensive rulemaking effort that included gathering and evaluating detailed wastewater influent, treatment and discharge information from the dischargers - municipal, industrial, or otherwise - that it intended to regulate with such standards. EPA should similarly collect and evaluate information from dischargers in the federal effluent category prior to imposing a limitation developed for POTWs that industries like INVISTA-Seaford may not be able to meet with current technology.

Response

See comment 0328.1.001.002.

Comment ID 0328.1.001.005

Author Name: Kimpton Steven

Organization: INVISTA

While we sincerely hope that EPA will not resort to the backstop provisions, INVISTA requests that at least for industrial facilities, the load allocations be based on mass load rather than concentration. While the latest technology such as biological nutrient removal (BNR) can reduce TN significantly, the final effluent concentration is a function of the influent TN concentration. Industry wastewater influent concentration can be significantly higher than that for a typical municipal facility. Therefore, while the percent removal (treatment capacity) of an industrial wastewater treatment facility can be equal or even better than a municipal facility, it would be difficult, perhaps impossible, to meet a concentration limit of 3 mg/L.

Response

Please refer to comment 0067.1.001.009

Comment ID 0376.1.001.003

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

We appreciate that EPA's draft TMDL preserves the pre-existing nitrogen and phosphorus allocations for significant industrial dischargers -- a decision that is fully justified by the federal and state administrative record.

Response

EPA appreciates VMA's support in the draft TMDL of the pre-existing nitrogen and phosphorous allocations for significant

industrial discharges.

Comment ID 0413.1.001.005

Author Name: Champion Traylor

Organization: Georgia-Pacific LLC (GP)

Technological Limitations and Impacts of Reducing Nitrogen and Phosphorus Levels in Pulp and Paper Mill Effluents

GP operates its wastewater treatment facilities as required by 40 CFR 122.41(e) which is a required component of all NPDES permits, including those in Virginia:

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

Since pulp and paper mill wastewater is typically nutrient-deficient, mills must add small amounts of nitrogen and phosphorus to achieve proper biological degradation of organic wastes. These additions of nitrogen and phosphorus to the wastewater treatment systems cannot simply be turned off: they are necessary for compliance with 40 CFR 122.41(e) and, without the addition of these nutrients, other effluent parameters, such as 5-day biochemical oxygen demand (BOD5) and TSS would increase dramatically since biological degradation would be impacted. Additionally, the relative amounts of nutrients being added are already optimized since adding excess nutrients would be unnecessary and expensive. Thus, there is not an option for GP to simply reduce or eliminate nutrient additions to its treatment system without risking noncompliance with effluent five-day biochemical oxygen demand (BOD5) and TSS limits.

We are unaware of any pulp and paper mill treatment systems that include nutrient controls for both phosphorus and nitrogen. EPA considers the limit of technology treatment levels for municipal wastewater treatment plants for biological nutrient removal to be 3 mg/l for total nitrogen and 0.1 mg/l for total phosphorus (draft TMDL, page 8-17, USEPA 2010). However, this technology has not been successfully applied to pulp and paper mill effluents. Thus, there is not a straightforward design example that demonstrates continued compliance with very low nutrient levels, such as those that may be unreasonably required by EPA's backstop levels.

GP has prepared preliminary cost estimates for the Big Island paper mill in meeting reduced nutrient levels as described in the VA DEQ WIP. The current estimated costs for the upgraded treatment facilities are estimated as approximately \$14 million. However, these costs were developed prior to the moderate backstop levels proposed by EPA for the Virginia WIP. We do not believe that existing nutrient removal technologies can achieve EPA's proposed backstop levels for a pulp and paper mill effluent for this type pulp and paper mill.

The implementation of this wastewater treatment system upgrade option would present the following additional complications and potential environmental impacts:

Increased energy consumption.

A corresponding increase in the generation of greenhouse gases.

Increased sludge generation, resulting in increased landfill costs and the need to permit and install new disposal areas.

Increased chemical consumption for precipitation processes.

GP is committed to protecting the Chesapeake Bay. At our Big Island Mill, GP has, over the past ten years, reduced nutrient and TSS discharges. Some of the efforts and projects that GP has instituted include:

A dredging program to remove solids from the polishing pond and limited re-entrainment of solids and feedback of nitrogen and phosphorus into the water column.

The addition of a polymer system to the secondary clarifier to reduce the discharge of TSS to the polishing pond, and reduced final effluent TSS levels.

The use of COD monitoring for influent loading information and nutrient feed control.

A change to a nutrient product that is comprised of UAN (urea ammonium nitrate) and ammonium polyphosphate that delivers higher available nitrogen per unit of feed and allows for lower phosphorus usage. Since our system requires minimal phosphorus addition, this has helped reduce residual phosphorus considerably.

The addition of oxygen to the primary clarifier for more efficient primary treatment and increased removal of TSS.

Conducted a study that demonstrated operation at a lower phosphorus level in the system while supporting efficient treatment. This has allowed for a reduction in nutrient usage in the activated sludge treatment system and subsequently reduced effluent phosphorus levels.

Additionally, GP has participated in the Virginia Nutrient Credit Exchange program since 2007 and offered nutrient credits (primarily phosphorus) on the exchange for sale. We believe the Virginia Nutrient Credit Exchange program represents a model for other states to follow and we applaud the Virginia DEQ in its forward-thinking actions to reduce nutrients from both point and non-point sources. We believe this is a demonstrated working program and a vital part of Virginia's watershed implementation plan.

Response

EPA agrees with the commenter that the WLAs established by the TMDL are low and will not be easy to achieve. The achievable concentrations for nitrogen and phosphorous commenter mentions are for municipal wastewater, which is expected to contain higher influent concentrations than those for a paper mill. Paper mills are expected to meet TMDL based limits by employing additional technologies, including but not limited to such things as, greater clarification of effluent, filtering or more extensive biological treatment to meet the limits that are required. It should also be noted that compliance with the new limits is not immediate, rather, new limits will be incorporated into permits at the time existing permits are either modified or reissued. NPDES regulations allow for the incorporation of schedules into permits or enforcement documents, as appropriate, to provide time to meet newly imposed limits.

Comment ID 0414.1.001.008

Author Name: Myers George

Organization: Milton Regional Sewer Authority

District of Columbia Blue Plains POTW Treated Differently from Pennsylvania's POTW's

The Blue Plains POTW NPDES permit was effective September 30, 2001.

1. Why is the Blue Plains POTW allowed to discharge from just one of its outfalls concentrations of total nitrogen and total phosphorus greater than EPA's assumed limit of technology? The NPDES permit provides for limits of 3.88 mg/l total nitrogen and 0.18 mg/l total phosphorus.
2. Why do the limits contained in the Blue Plains POTW NPDES permit allow cap loads of 4,377,580 pounds per year total nitrogen which is equal to the load granted to all 183 significant POTW's in Pennsylvania (before the consideration of the average Pennsylvania delivery ratio of 0.75. and Blue Plains delivery ratio of 1.0)?
3. Why is there no cap load for total phosphorus in the Blue Plains permit?
4. Why is the concentration limit for total phosphorus 0.18 mg/l instead of the EPA assumed limit of technology of 0.1 mg/l?
5. Why are the proposed backstop limits for Pennsylvania POTW's lower than the limits imposed on Blue Plains in light of Blue Plains much higher delivery ratios and the Pennsylvania POTW's in the Potomac basin being upstream of the Blue Plains discharge?
6. Why is the "calculated cap load" (based on design flow times monthly maximum concentration) for total phosphorus 202,737 pounds per year when the total nitrogen cap for all Pennsylvania point sources is 200,000 pounds per year?
7. Same question, but asked in light of the difference in delivery ratios for Blue Plains and all of Pennsylvania.
8. Are the Blue Plains planned total nitrogen reductions beginning in January 1, 2015 considered in the current model and in the resultant allocation of loadings to states and segments within state?

Response

Commenter asserts that the Blue Plains WWTP (BP) is treated differently than POTWs in PA. BP is the largest advanced wastewater treatment plant in the world; because it is very large, the volume of its effluent is also very large and even meeting very stringent limits, its output is well beyond the nutrient controls of the many significant WWTPs in Pa. There are no one-size-fits all NPDES permits for POTWs; permit conditions are based on a variety of requirements including but not limited to state water quality standards so there are numerous ways that differences can exist. The limits written into the BP NPDES for TN are very strict, at the limit of TN removal technology. Meeting the TN limit at BP is contingent upon the completion of an enhanced clarification system (ENR) costing approximately \$800M. The ENR system also removes pathogens and particulates from wastewater and reduces turbidity and disinfectant-consuming constituents thereby increasing the effectiveness of subsequent disinfection.

The BP WWTP has two outfalls; the primary outfall for treated effluent is 002; a second outfall, 001 is a CSO- related by-pass which discharges during wet weather. The TN limit applies for the whole facility, e.g., 001 and 002. The TN limit is based on the nitrogen cap loadings established in accordance with the EPA Bay guidance, state water quality standards and the tributary strategies developed for the Bay. The TP limit is based on a variety of operational issues and water quality agreements for the

Potomac. It was modified in the 2003 permit issuance and carried over since that time. As with every permit reissuance, the TP limit will be reevaluated when the permit is reissued or modified.

EPA modeling did not include a scenario for 2015, however BP planned reductions were considered in all WIP and backstop scenarios and in the resultant WLA.

The total cap load for all point sources cited in this comment is incorrect. Please refer to table 9-1 of the final TMDL document for the correct loads.

Comment ID 0565.1.001.001

Author Name: Faggert Pamela

Organization: Dominion Resources Services, Inc.

I. Proposed Limits for Significant Dischargers

Dominion has significant concerns regarding the potential imposition of both the EPA's moderate and full Federal backstops. As mentioned above, Dominion owns and operates the Chesterfield Power Station, a 1700-Megawatt fossil fuel power station in Chesterfield, Virginia. The EPA's moderate backstop, as set forth in Section 9, Table 9-4 of the Draft Chesapeake Bay TMDL, proposes the following wasteload allocations (WLAs) for the Chesterfield Power Station:

Facility - Dominion - Chesterfield Power Station
Annual Nitrogen WLA (lb) - 343,939
Annual Phosphorus WLA (lbs) - 185
Annual Sediment WLA (lbs) - 0.000000

[Reproduced from the original located on page 1 of original letter EPA-R03-OW-2010-0736-0565.1]

EPA indicates that if the Virginia WIP is not strengthened by the Commonwealth, then the agency will include the moderate backstop limits in the final TMDL and possibly include the full backstop limits if warranted. The EPA's full backstop WLAs proposed for the Chesterfield Power Station, located in Table Q-2 of the draft Chesapeake Bay TMDL, are as follows:

Facility - Dominion- Chesterfield Power Station
Annual Nitrogen WLA (lbs) - 166,036
Annual Phosphorus WLA (lbs) - 43
Annual Sediment WLA (mill lbs) - 0.000000

[Reproduced from the original located on page 2 of original letter EPA-R03-OW-2010-0736-0565.1]

Per the recent meeting of the Virginia Water Commission held on October 26, 2010, we understand that the

Commonwealth and the EPA are working towards a resolution that will avoid the federal backstops in the final TMDL, pending ongoing negotiations around the concept of "reasonable assurances." Given that negotiations are underway and that no final decision has been reached regarding the incorporation of backstop limits on point source discharges, we offer the follow perspective on the backstops.

A. Sediment Backstops

The moderate backstop numbers listed above propose a total annual sediment wasteload allocation (WLA) of 0.00 for the Chesterfield Power Station. It is our understanding that calculations performed by Tetra Tech on behalf of the EPA produced the zero sediment WLA because the input deck provided to TetraTech did not include flow data for the Chesterfield Power Station. As a result, the moderate and full backstops propose incorrect and not reasonable achievable sediment WLAs for the Chesterfield Power Station. Dominion is providing the following flow data to the Commonwealth and EPA to correct the input decks being used to develop the sediment TMDL:

Outfall 004, 2006-2009: Average Flow 10.04 MGD Maximum Flow 12.06 MGD

Outfall 005, 2006-2009: Average Flow 2.74 MGD Maximum Flow 4.59 MGD

As acknowledged by EPA in its evaluation of the Virginia WIP, the sediment reductions called for in the Virginia WIP exceed the sediment load reduction goal set by the EPA by as much as 12%. (EPA's Draft May TMDL Executive Summary at 7). Moreover, the EPA has noted that wastewater sources of sediment are an insignificant portion of the Chesapeake Bay sediment load. In Section 4.5.2 of the EPA's draft TMDL, EPA indicates that from the 75 significant and 1,446 non-significant industrial discharges, the estimated 2009 TSS wasteload to the Chesapeake Bay is 0.5% of the total load. Furthermore, in Section 4 of the draft TMDL the EPA determines, "[m]odeled sediment loads for those [industrial] facilities are not present because wastewater discharging facilities represent a de minimis source of sediment." (EPA Draft TMDL at 4-17). The small amount of sediment from industrial wastewater is controlled in VPDES permits by existing technology-based limits in the form of monthly average Total Suspended Solids (TSS) concentrations. Additionally, we wish to note that TSS and sediment resulting from stream bank erosion and soil erosion are not the same. Much of the sediment of concern with regards to the Chesapeake Bay is inorganic in nature and is associated with erosion from upland land surfaces and erosion of stream corridors. By contrast, the sediment found in most industrial processes is organic. Existing cost-effective filtration technologies are not likely to achieve EPA's backstop allocations, because the organic nature and small size of the industrial TSS makes it difficult to settle. While we support the collective effort to restore water clarity and submerged aquatic vegetation through the control of sediment, we believe that the sediment backstops for point sources are not prudent given existing controls and the de minimis impact of such discharges.

B. Nutrient Backstops

Under the Water Quality Management Planning Regulation (9 VAC 25-720) and the resultant Watershed General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9 VAC 25-820), the Chesterfield Power Station holds a nitrogen WLA of 352,036 pounds and a phosphorus WLA of 210 pounds. We are currently able to comply with the nitrogen and phosphorus WLAs. At this time, however, compliance with the Chesterfield Power Station's phosphorus WLA can be accomplished only through the purchase of available nutrient credits.

Over the past several years Dominion has made a considerable investment in state-of-the-art air quality control equipment, and we expect to install additional emissions control technologies to achieve various emissions reductions in the future. An unintentional outcome of the operation of this air emissions control equipment is the addition of nutrient loadings. For example, Dominion is in the process of adding a second Flue Gas Desulfurization (FGD) unit at Chesterfield. As the two FGD units become fully operational, they are expected to impact the nitrogen and phosphorus discharges at the station. However, these emissions controls remove substantially more nutrients from the air than will be returned to the water.

The Chesterfield Power Station also reclaims and reuses wastewater from the Proctors Creek Wastewater Treatment Plant. This beneficial reuse of water at the Chesterfield Power Station reduces water intensity at the facility and helps conserve the water resources of the Commonwealth. At the time WLAs were assigned to the Chesterfield Power Station under the Water Quality Management Planning Regulation, the reuse of the Proctors Creek WWTP effluent was not under consideration. Without out careful consideration of benefits of this reuse of water it is could become even more difficult for Dominion to comply with its existing nutrient WLAs.

The Chesterfield Power Station also has a large volume of non-contact cooling water. We ask that the Commonwealth continue to exclude non-contact cooling water discharges from applicable WLAs. We also ask that DEQ give consideration to excluding other similar discharges that contain "background" nutrient loadings such that WLAs are based upon net loadings.

Dominion urges the EPA to maintain the current WLAs for the Chesterfield Power Station. The nutrient reductions contemplated in the moderate and full backstops become achievable only if sufficient nutrient credits are available for exchange. We support provisions that allow nutrient trading and offsets to achieve water quality goals. However, we are concerned that the federal backstops may result in a nutrient credit market where demand exceeds supply.

Response

Please see response to comment 0067.1.001.009

Comment ID 0565.1.001.003

Author Name: Faggert Pamela

Organization: Dominion Resources Services, Inc.

II. Proposed Limits for Non-significant Dischargers

The EPA proposes the following WLAs for non-significant Dominion facilities in the Chesapeake Bay Watershed (Table Q-2 of the Draft TMDL):

[Please see table on page 4 of the original letter EPA-R03-OW-2010-0736-0565.1]

Upon inquiry to the EPA, however, it was determined on November 1, 2010 that the backstop numbers listed in Table Q-2 for non-significant Dominion facilities were incorrect. The EPA has provided the following corrected WLAs:

[Please see table on page 5 of the original letter EPA-R03-OW-2010-0736-0565.1]

We appreciate EPA's willingness to reexamine the backstop numbers for our facilities and their gracious provision of corrected numbers. However, we are concerned that both the original and the corrected backstop numbers do not comport with actual loadings at these facilities. If the backstops move forward, we encourage the EPA to develop WLAs that represent the effluent characteristics and recognize the nature of operations at each facility. New WLAs that are incongruous with actual discharges, loadings, and treatment capabilities may ultimately result in WLAs that fail to ensure the maintenance of water quality standards.

For example, the corrected full backstop numbers listed above propose nitrogen, phosphorus, and sediment WLAs of 0.00 for the Mt. Storm Power Station. As discussed with the Chesterfield Power Station sediment WLA, the input decks used to calculate these WLAs relied on incorrect flow data. Prior to November 2009, the Mt. Storm Power Station did not have instrumentation to measure flow at Outfall 001. Since the installation of flow measurement instrumentation, flows from Outfall 001 have ranged from a monthly average of 0.55 MGD to as much as a monthly average of 152 MGD. At this time, Dominion has only the one year of measured flow data for outfall 001 at Mt. Storm and is concerned that the figures shown above may not reflect future operations and flows. If the federal backstops move forward, we hope that there will be an opportunity to gather more accurate flow data before establishing WLAs for nutrient and sediment loadings at the Mt. Storm facility.

We also note that the WLAs proposed in the backstops do not distinguish between stormwater outfalls, non-process, process, and sewer outfalls at or between the facilities listed above. In general, the Dominion facilities listed above have several outfalls. Additionally, the Castlewood Facility is a biology, recycling, and materials handling facility with one discharge, a stormwater outfall. However, in the backstop, a WLA has been developed for the Castlewood Facility that is identical to WLAs developed for the Yorktown Power Station, the Chesapeake Energy Center, and the Dominion Gravel Neck and Surry Power Station. The capability to treat nutrients and sediment sufficiently varies greatly between stormwater and industrial sources. Accordingly, without further clarification, it seems that setting identical numerical limits for stormwater and industrial outfalls will not produce the "reasonable assurances" that the EPA desires.

Similarly, the EPA proposes nitrogen, phosphorus, and sediment WLAs of zero for the Dominion Gas Transmission Sabinsville Station. The Sabinsville Station discharge results from a stormwater pond outfall. Flows at this facility are not measured due to the fact that flows generally occur only during periods of rain. Freshwater springs at the facility also create some flow from the stormwater pond, however, during periods of no rainfall no flows may occur.

The Dominion Gas Transmission Tioga facility represents yet another distinct category of discharge. The discharge at this facility is the result of a sewage package plant. The flows from this discharge are not measured due to the intermittency of the discharge. At this time, the facility is manned by 2 people over a 24-hr period. It is estimated that the flows from this facility are somewhat less than the sewage discharge resulting from a typical household of 3 or 4 people.

We understand that the EPA is looking at all types of industrial outfalls to find reductions in the absence of "reasonable assurances" that reductions will be achieved from all contributing sources. However, we request that the EPA take into

account the unique differences in stormwater, process water, non-process water, and sewer water when evaluating the appropriateness of controls on affected facilities. In order to aid the EPA, we are providing a chart in Appendix A [Comment Letter contains additional information in the form of an attachment. See original comment letter 0565.1] that illustrates the various outfall types at potentially affected Dominion facilities.

Dominion is also concerned that stale data and data aggregated from sources other than the permittee have been employed to develop the non-significant backstops. EPA recognizes that most non-significant facilities do not have monitoring data for nutrients and sediment, since such facilities have not been required to monitor for these effluent constituents. Thus, when developing the draft TMDL backstops for non-significant facilities, the EPA relied upon estimates from Tetra Tech based on the Typical Pollutant Concentrations for non-significant industrial plants.

The aggregation of data from across an industry or industry sector may produce illogical results when applied to an individual facility, especially where individual facilities within an industry can have very different effluent characteristics. In such a case, the employment of typical pollutant concentrations for an industry may produce permit limits that fail to recognize facility capabilities and protect water quality.

Dominion is concerned that the EPA industry concentration estimates do not represent the characteristics of the effluents at our facilities in a manner that is accurate or appropriate to ensure the protection of water quality. We have examined the non-significant facilities listed above, but we have been unable to make any determinations on the appropriateness of the limits proposed by the EPA due to the lack of sufficient, representative monitoring data for nitrogen, phosphorus, sediment, and flow at our facilities. We, therefore, support requests made from the Bay jurisdictions to monitor for nitrogen, phosphorus, sediment, and flow at non-significant facilities.

Response

EPA's allocation applicable to WWTPs and industrial sources including the commenter has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter. Implementation of the NPDES effluent limits and control actions, regardless of whether they are WIP or backstop derived, will be accomplished through the NPDES permit consistent with the WLAs, and those limits will be developed using actual site conditions. The allocation commenter discusses is the backstop allocation. Backstop allocation scenarios were designed to have a specific control level on all facilities in the absence of consideration of actual site specific technologies. Thus, backstop allocations represent an overall level of control, rather than site specific application. Backstop allocations may not appear reasonable for facilities in the absence of information relating to specific levels of control. Backstop allocations are only intended to be used by EPA in this TMDL in the event that other reduction scenarios fail to meet required water quality standards

Comment ID 0604.1.001.003

Author Name: Missimer Carroll

Organization: P. H. Glatfelter Company

EPA's Backstop Waste Load Allocations for Glatfelter and Other Dischargers Are Incorrectly Calculated and Unattainable

In the text of the Executive Summary and in several chapters of the main text of the TMDL document (for example, see Table 8-6 in Section 8, page 11), EPA states that it their intent to force point source municipal and industrial waste water treatment plants to attain final effluent concentrations of 3 mg/l total N and 0.1 mg/L total P at design flows in states that have been designated as having a high-level backstop allocation. EPA states that these concentrations are the "advanced wastewater treatment limits of technology" for nitrogen and phosphorous. However in the supporting document Table Q-1 - Proposed WQS - Annual Loads, EPA has calculated a total annual Phosphorous load for Glatfelter of 847 pounds per year, which translates into a final effluent concentration of less than 0.01 mg/L or an order of magnitude less concentration than EPA itself admits is technically feasible. The same difference between the EPA limit of technical feasibility and the allocated load is present for most other municipal and industrial dischargers, at least in Pennsylvania.

It is unclear if it is really EPA's intent to make municipal and industrial dischargers attain final effluent concentrations of nitrogen and phosphorous that EPA itself admits are not attainable or if EPA has made a significant error in its modeling of the waste load allocations. In any case, EPA needs to make the results of the modeling consistent with its own admission about the technological limits of waste water treatment plants to remove nutrients.

Response

EPA's allocation applicable to WWTPs and industrial sources including the commenter has changed significantly based in part on receipt of a Final Phase I WIP from Pennsylvania, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter.

Comment ID 0604.1.001.006

Author Name: Missimer Carroll

Organization: P. H. Glatfelter Company

EPA's Proposed TMDL Does Not Properly Account for the Removal of Nutrients in Intake Waters

Using NPDES permit effluent monitoring data and upstream and downstream water quality data collected as part of the NCASI Long Term Receiving Water Study, Glatfelter has demonstrated to Pennsylvania DEP that the mill removes more nutrients from Codorus Creek than it return to the creek in its effluent discharge.

In a response to a request from PA DEP, Glatfelter on June 12, 2008 submitted a "Significant Industrial Discharger" report to the department documenting the operation of the mill's waste water treatment plant and summarizing the available data on nutrients. (See Attachment C) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0604.1] In particular, Glatfelter documented that the mill is a net sink for total nitrogen. At a location upstream of the discharge but downstream of the intake, the average total nitrogen concentration

of Codorus Creek (3.90 mg/L) was higher than the water quality monitoring station downstream from the discharge (3.36 mg/L), while the average effluent concentration (2.56 mg/L) was lower than either the upstream or downstream station.

The mill updated this information in a May 21, 2010 letter to PA DEP and documented that in 2008 and 2009, the effluent concentration of total nitrogen was 2.4 mg/L while the upstream and downstream concentrations were 4.03 and 3.45 mg/L, respectively. (See Attachment D [Comment Letter contains additional information in the form of an attachment. See original comment letter 0604.1]) Likewise for total phosphorous, in 2008 and 2009, the downstream concentration of total phosphorous was less than the upstream concentration of total phosphorous for 46 of 70 paired samples, while the absolute concentration differences were not as remarkable as those noted for nitrogen.

EPA's proposed TMDL should provide Glatfelter and other dischargers that remove nutrients, with a proper nutrient credit or at the very least should not require them to remove additional nutrients.

Response

EPA acknowledges the beneficial effects of the paper mill that results in a decrease of nitrogen concentration between influent and effluent. Commenter states that that this mill has effectively lowered the effluent nitrogen concentration to an average of 2.4 mg/l which already is within the range achievable by technology. If additional treatment is necessary, such technologies as additional biological treatment, filtering or clarification may be considered. Fortunately, the final state WIPs were much improved, allowing EPA to choose to reduce or remove the backstop allocations in the final TMDL.

Comment ID 0713-cp.001.001

Author Name: Reese Jodi

Organization: CET Engineering Services

For those facilities which discharge to nutrient impaired streams, purchasing of nutrient credits is not allowed by the PA DEP. Therefore, how is the industrial facility on that impaired stream to meet its allocations if the caploads are below the limit of treatment technology and nutrient credits cannot be purchased?

Response

Please see response to comment 0288.1.001.031

22.3 - CAFOS

Comment ID 0087-cp.001.003

Author Name: Phillips D. H.

Organization:

I am especially concerned that controls on water pollution from animal feces from confined animal feeding operations will not be strong enough. However, the targets are at least a very good start toward that goal.

Response

Please refer to response to comment 0228.1.001.002. EPA's evaluation of the final WIP can be found in Section 8 of the final TMDL report.

Comment ID 0102-cp.001.002

Author Name: Goggin Brenna

Organization: Delaware Nature Society

In Delaware, like most of the Bay states, agriculture makes up almost half of the land use, meaning the pollutant loads from agricultural land uses are comparable to residential land uses on a per acre basis. The Society supports the EPA's regulatory requirements for point sources such as CAFO's. These stringent regulations will ensure CAFO's reduce their nutrient discharge of nitrogen necessary to achieve the objectives of the TMDL for the Chesapeake Bay.

Response

The EPA regulates animal feeding operations (AFOs) that discharge or propose to discharge pollutants into waters of the United States under its Concentrated Animal Feeding Operation (CAFO) regulations. Poultry operations in Delaware with over 37,500 birds are required to get permits and implement nutrient management plans (NMPs). These NMPs outline how the operations manage their manure so that none of it runoffs into the Chesapeake Bay.

Comment ID 0126.1.001.019

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

At this time the effectiveness of the agricultural BMPs is based on limited research. The calculations of the nutrient and sediment reduction efficiencies are based on current best scientific estimates. Due to the limited number of field studies, the accuracy or reliability of these agricultural BMPs is not available.

We have confidence that our research and academic communities are capable of determining the reliability of the agricultural BMPs if funds are provided to accomplish such an objective. Adequate field testing of the Ag BMPs is needed to ensure that the reduction of nutrients and the reduction of sediment are positively correlated. If research

reveals that certain practices have a negative correlation then implementation of these certain practices may not be advisable.

Response

Please see response to comment 0648-cp.001.002.

Comment ID 0126.1.001.023

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Livestock Exclusion of Streams Health Risk Assessment

Exclusion of livestock by creating riparian buffers would increase the wildlife habitat and the potential reservoir of infection of wildlife diseases.

There about 150 diseases that can be transmitted from wild and domestic animals to humans.[FN 5]

Alternative Livestock Watering Beneficial to Herd Health

Research indicates that providing alternative water source for livestock would result in increased weight gains.[FN 4]

[FN 4] Veira, D., Meristem Land & Science, Water wisdom boosts cattle performance, Jan. 29, 2003 [FN 5]Tortora, G., et al, Microbiology An Introduction, Fourth Edition

[FN 5] Tortora, G., et al, Microbiology An Introduction, Fourth Edition

Response

Fencing cattle out of streams is one of the Best Management Practices (BMPs) that EPA advocates for reducing pollutant loads.

Stream fencing prevents physical damage caused by cattle and reduces sediment loads to the Chesapeake Bay. Stream fencing also prevents the direct deposit of manure, urine, and their associated nutrient loads into the stream. Farmers have also told EPA that fencing cattle out of streams improves herd health for the farmer.

Comment ID 0181.1.001.003

Author Name: Ranck Rebecca

Organization: Wenger's Feed Mill, Inc.

The second reason for concern is the proposed ruling in which EPA's TMDL creates more regulations on already heavily regulated Concentrated Animal Feeding Operations (CAFOs). The main concern with this aspect is CAFOs are already regulated through National Pollutant Discharge Elimination System Permits that are required based on the

number of animals housed per farm. These permits are very consistent and require documentation of all aspects of the production facility. These permits require annual and often times several inspections a year. Seeking to further regulate these operations will not be an effective way to reduce more of the nutrient and sediment load contributing to the Bay. Continuing to only target one group of larger producers is not going to further reduce nutrient and sediment loads in large quantities.

Response

EPA recognizes that many animal operations in the watershed are CAFOs covered by NPDES permits that require nutrient management plans. Nevertheless, EPA has documented that significant opportunities still exist for CAFOs to implement improved nutrient management practices that will provide further reductions in nutrients to the Bay watershed. EPA is also considering rulemaking options to reduce nutrient and sediment loadings from animal operations including CAFOs.

Comment ID 0181.1.001.006

Author Name: Ranck Rebecca

Organization: Wenger's Feed Mill, Inc.

Being a regulated entity for poultry layer production, it is difficult to see what reductions will come from further regulating CAFO operations.

Response

Thank you for your comment regarding nutrient reductions from a CAFO. EPA has assessed management practices for the production area of a permitted CAFO that could be included in a NPDES permit. It is EPA's opinion that there are additional management practices e.g. roof gutters to keep clean water clean and stormwater ponds that could capture storm events that would further reduce nutrient runoff. There has also been research done on reducing the release of nitrogen from poultry houses and a few management practices that are being used to reduce nitrogen from being deposited in nearby receiving streams.

Comment ID 0277.1.001.003

Author Name: Shambaugh Brenda

Organization: PA Association of Conservation Districts (PACD)

The U. S. EPA has discussed changing the Concentrated Animal Feeding Operation (CAFO) standards, making them more stringent. If that were to occur, additional, smaller farm operations would be classified as CAFO units. PACD strongly disagrees with this concept. Permitting a farm does not equate to more significant nutrient reductions, and could be counter-productive to our nutrient reduction goals making the concept not only unpractical, but inappropriate. Pennsylvania has more stringent regulations than any other state in the Chesapeake Bay watershed. A more sensible

and realistic approach is to facilitate a concerted outreach program to the agricultural community concentrating on bringing all PA farms into compliance. To help meet this goal, PACD and the Natural Resource Conservation Service (NRCS) is developing, and will soon be implementing, a training program for conservation planning. A private consultant will work with us to facilitate a course entitled "Introduction to Conservation Planning." It is hoped that 60 to 90 conservation district staff, non-profit staff, consultants, state agency personnel, and extension employees will be participate in the program and then deliver direct conservation planning assistance to farm operators and rural landowners throughout Pennsylvania.

Response

EPA appreciates the comment and the commitment of the commenter towards environmental goals. EPA also recognizes that Pennsylvania and the agricultural community, have made significant past progress towards addressing the problem of excess nutrients and sediments to the tidal Chesapeake Bay. The agriculture and point source sectors, including municipal waste water treatment plants, have achieved the majority of the pollution reductions to date. Agriculture continues to represent the largest managed land use within the Chesapeake Bay watershed, as well as the largest single source of nutrients and sediment entering the Bay. Consequently, EPA, Pennsylvania and the Bay states are seeking additional nutrient and sediment reductions from the agricultural sector to assist with achieving the water quality requirements of the Chesapeake Bay TMDL through their supporting Watershed Implementation Plans (WIPs). A portion of this continued reliance by EPA on state WIPs to achieve future nutrient and sediment reductions is based on improving the tracking and reporting of both cost-shared and non-cost shared agricultural practices to more clearly document implementation of conservation practices by the agricultural community. If the implementation of the state's WIP should result in fewer nutrient and sediment reductions, exceeding the TMDL load allocations, EPA reserves its authority to take additional federal actions to achieve those allocations. Two possible actions are a revision of the CAFO program requirements through rulemaking and/or NPDES program amendments, and designating additional specific AFO as CAFOs that would then be required to obtain NPDES permits. EPA's backstop allocation include AFOs as well as CAFOs in the wasteload allocation portion of the TMDL but does not by itself require AFOs to apply for NPDES permit or effect their status as nonpoint sources under the CWA. Such backstop allocations are based on the assumption that EPA or the State would take some action in the future. Before an AFO would be required to apply for an NPDES permit, EPA would need to go through the federal regulatory designation process set forth at 40 CFR 122.23(c). See Section 8.3 for more detailed discussion of backstop allocations.

Comment ID 0389.1.001.021

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

NY's Technical Standards Afford Superior Protection of the Environment.

There have been several recent media references to the shortcomings of phosphorus runoff management tools and how these tools allow continued degradation of the Chesapeake Bay. Contrary to some generalized statements made about phosphorus (P) indices in the public press, the New York P index (NY PI) does not allow unlimited application of manure. The NY PI, introduced in 2001, is an indicator of P loss potential and allows for ranking of fields for risk of loss of both particulate and soluble P forms, reflecting the predominant pathways for P runoff. The NY PI requires P

application restrictions if P runoff potential is high and elimination of P application (manure or fertilizer) where P runoff risk potential is very high. Where P sources (soil, manure, fertilizer) and P transport risk potential are both high, the NY PI causes farms to change management of a field to reduce the risk of P loss or apply manure elsewhere. The NY PI and related guidance continue to undergo changes as insights are gained into P movement in our landscapes but we are confident that the NY P index is an effective and appropriate tool for environmental protection. [FN17]

New York's CAFO farms must comply with stringent technical standards designed to afford superior protection of the environment. The technical standards take the form of USDA-NRCS conservation practice standards and state regulatory requirements, both of which exceed the minimum requirements set by EPA and USDA-NRCS and are tailored to be most effective for NYS conditions based on applied research from Cornell University - NYS' land grant university. As such, CAFO farms must utilize professional engineers in the design and implementation of their waste storage structures, must adhere to stringent setbacks for nutrient applications in farmlands adjacent to New York's waters and must make those applications in accordance with science-based nutrient management plans. In the New York State portion of the Chesapeake Bay watershed about 42% of the total animals units are regulated under the stringencies of the New York CAFO permit. They have had nutrient management plans, developed by a certified planner, for approximately 10 years. These plans, at a minimum, must be balanced for crop N needs in accordance with Land Grant guidelines and, if the NY PI score becomes high, or very high, P applications from manure or fertilizer must be limited (high) or cease altogether (very high). Each field on these farms needs to be evaluated for the NY PI and these assessments have often stimulated both redistribution within the farm and collaborative agreements between dairy farmers and their cash grain or vegetable producing neighbors. The CAFO program ensures that manure nutrients from large farms are recycled to grow crops rather than allowing those nutrients to reach the waters of New York State[FN18] It is these stringent technical standards and the CAFO program's proven rate of implementation and enforcement that protects water quality within the Bay water shed and is responsible for a significant portion of the nutrient load reduction New York has been able to achieve in the last ten years.

Additionally, in New York, in order for farms to receive state or federal funding for implementation of best management practices those practices must be designed, constructed, operated and maintained in accordance with the same USDA-NRCS conservation practice standards required in the regulatory CAFO program. New York NRCS has, for the past four years, required producers to have a current CNMP to be eligible for EQIP funds to install livestock waste practices. Only practices required in the CNMP are eligible for EQIP funding. NRCS also provides funding for the development of CNMPs for producers who do not have them. Similarly, any practice installed under the AEM program must meet these same technical standards.

2. EPA is Confusing Regulation with Impact.

EPA, through this TMDL, has mistaken regulatory initiatives with solutions that will result in restoration of Chesapeake Bay. Many of the immediate Bay states have nutrient management programs "on the books" that do little to control manure distribution or reduce applications rates and are very liberal compared to New York's nutrient guidelines that are required to be implemented by all CAFOs and many AFOs. Consequently, regardless of barrier type BMPs, many farms and fields in the immediate Bay states receive nutrient rates that cannot be recycled by crops, and the Chesapeake Bay is still impaired. What EPA must do is peer beyond the regulatory veil and look to states with guidelines that actually protect water quality, not the status quo, with documented success and clean water and demand the same results from those states that continue to produce poor water quality. An unbiased evaluation of the nutrient management programs of the various Bay states would identify those states whose guidelines protect water

quality, and provide a basis for a model program that would, if consistently and uniformly implemented, result in tangible benefits to the Bay. The deliverables in the state watershed implementation plans must include documentation of soil test nutrient levels being restored to agronomically appropriate levels without continued reliance on ammonia volatilization or multiple years worth of P application or P applications to crop removal regardless of how high the soil test P level is to make the nutrients "balance". It is unreasonable to expect the land in these areas to be able to recycle the nutrients, in particular the phosphorus, from many highly dense areas of animal agriculture including numerous landless poultry operations.

New York State animal agriculture is dominated by dairy cows and our dairy cow feeding programs are dominated by home grown forages. Home grown forage typically includes hay, hay crop silage and corn silage or the like. The typical dairy cow gets about one-half or more of her total diet from forage. Forage is bulky and heavy (often 60-70% water) and so is usually produced relatively close to where the cows are located. This means that most New York State dairy farms tend to have a fairly large land base (resulting in a relatively low animal density of 0.43 animal units per acre) that allows farmers to produce low cost feed nearby AND to use manure as the nutrient source for those crops in a reasonably balanced fashion, reducing the need for fertilizer [FN19]

EPA's agricultural-related focus must be on the lands in the Chesapeake Bay watershed and respect that there are places that simply have too many animals for the associated land base. Unless EPA addresses the underlying problem with how some types of agriculture are organized in some areas, there is no suite of BMPs or backstop measures that can restore the Chesapeake Bay: there are simply too many manure nutrients chasing too little land to solve this with land-based BMPs alone.

Consider the following points:

1) New York producers have made huge strides in reducing fertilizer and feed use of P over the past 10 years. The amount of fertilizer P used on farms decreased from 35.1 million lb P in 1997 to 28.1 million lb of P in 2002, down to 23.2 million lb of P in 2006 amounting to a shift in average P fertilizer application rate from 9 lbs P/acre (equivalent to 21 lbs P fertilizer/acre) in 1997 to 6 lbs P/acre (equivalent to 15 lbs P fertilizer/acre) in 2006 (Figure 1). Combine these statistics with conservative estimates for reduction in feed P use by dairy farms (23%), amounting to a reduction of approximately 9 million pounds of P per year (about 12 of this reduction due to smaller dairy cow population, the other 12 due to active decisions by farm managers to reduce ration P levels), and it becomes evident that New York State producers have reduced P use by tens of millions of pounds per year in the last decade, while improving overall productivity as shown by an increase in the average crop yields and milk production over the same time period. These changes mean significantly less P is being brought into the state and hence less is prone to environmental loss.[FN20]

2) The reductions in P use in crop production and dairy rations have changed New York State from a P excess state just ten years ago to one that is now in approximate balance for agricultural P sources. This means that currently all the fertilizer and manure P managed by New York State farms equals the amount of P removed by crops. This does not mean that every field is in perfect P balance, but clearly shows that we do not have significant P excesses in this state. [FN21]

3. New York's Agricultural Environmental Management (AEM) Program

There are two primary and intertwined programs in New York that address agriculture: the New York CAFO regulatory

program and the NY Agricultural Environmental Management Program. It is important to note that the New York CAFO program covers all farms with as few as 200 cows with binding permits, whereas under the USEPA program, only some farms with greater than 700 animals would be covered by regulatory permits. 65 CAFOs are permitted in the New York Chesapeake Bay watershed. New York's AEM program is currently working with 2,285 additional farms in the New York Chesapeake Bay watershed. New York's CAFO and AEM programs cover 95% of the dairies in the New York portion of the Chesapeake Bay watershed.

New York State supports "Environmentally and Economically Sustainable Agriculture."

New York farmers are active stewards. More than 12,000 farms statewide of all types and sizes are involved in AEM, a program that responds to environmental needs with cost effective improvements that benefits farms and communities. Using a voluntary, yet highly interactive, incentive-based approach to meet local, state and national water quality objectives, AEM has become the primary program for agricultural conservation in New York. AEM core concepts include an incentive-based approach, attending to specific farm needs and reducing farmer liability by providing approved protocols to follow. AEM provides a coordinated and confidential planning assessment method that addresses watershed needs. Initiation of the assessment process is recognition of the impact farm activities have on the environment.

[PLEASE SEE FIGURE ON PAGE 22 OF THE ORIGINAL LETTER #0389]

Tier 1: inventory of farm resources, environmental concerns and interests;

Tier 2: assessment of environmental risk and existing stewardship at the farm and watershed scales;

Tier 3: conservation planning to address environmental concerns with BMPs according to NRCS planning methods;

Tier 4: implementation of BMPs according to NRCS standards (includes contractual obligations/timelines, use of certified professionals such as PEs, design documentation and on-going O&M requirements); and

Tier 5: evaluation of BMPs to ensure on-going environmental protection.

4. New York State Environmental Protection Fund - Agricultural Non-Point Source Abatement and Control Grant Program (AgNPS)

--\$81 million has been allocated through AgNPS for conservation practices over 16 rounds of funding since 1994.

--Plus \$25 million in cash and in-kind investment by farmers.

--USDA-NRCS programs roughly match AgNPS funds annually.

AgNPS and NRCS programs are the major pathways for implementation and have contractual requirements during and after implementation.

[FN17] Czymmek, K.; Ketterings, Q.; Chase L., and, Geohring, L. The New York Phosphorus Site Index: The Sky is Not Fall. Chesapeake Bay Journal (2010).

[FN18] Id.

[FN19] Id

[FN20] Id

[FN21] Id

[FN22] Agricultural Environmental Management Annual Reports 2005-2010.

Response

EPA appreciates the comment and the commenter's commitment to an environmentally sound agriculture program. EPA disagrees that the TMDL requires AFOs to apply for NPDES permits.

See response to Comment ID 0277.1.001.003 for more discussion of the backstop allocation.

Thank you for providing a comment on New York's Technical Standards. You indicate that CAFO farms must comply with stringent technical standards designed to afford superior protection of the environment. The technical standards take the form of USDA-NRCS conservation practice standards and state regulatory requirements, both of which exceed the minimum requirements set by EPA and USDA-NRCS and are tailored to be most effective for NYS conditions based on applied research from Cornell University - NYS' land grant university. During NY's development of the agriculture Watershed Implementation Plan there were several conference calls between EOA and the NY agriculture work group which was very helpful in understanding some important environmental issues related to technical standards and in particular appropriate agronomic application rates for land application of manure and to a lesser extent poultry litter. It was EPA's understanding that more detailed information would be included in NY's final WIP that would provide adequate documentation of progress made over the years by Cornell University and other state and local agencies involved in addressing technical standards. As we await the final WIP submission EPA is planning on reviewing all state CAFO related technical standards as part of a national analysis to insure that state adopted technical standards are as protective of water quality and result upon implementation the reduction of harmful nutrients.

Comment ID 0432.1.001.016

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

8. EPA's preoccupation with imposing federal permitting requirements on all farms is counterproductive to environmental quality.

EPA seems to be preoccupied with regulating all of Pennsylvania's animal farms as Concentrated Animal Feeding Operations ("CAFOs") and requiring all Pennsylvania farms to obtain National Pollutant Discharge Elimination System ("NPDES") permits as a condition for farm operation. Frankly, this is regulatory overkill. Most smaller family farms cannot afford the thousands of dollars of additional costs they will absorb to attain the services needed in the formal presentation and approval of NPDES permits. And these additional costs will unnecessarily divert monies that could be otherwise used to carry out environmental practices identified in manure management and soil conservation plans.

We believe the marginal environmental benefits to be attained under a directive for NPDES permitting of all animal farms does not justify the commitment of the high costs that Pennsylvania farmers would need to incur.

Response

EPA disagrees that the TMDL requires AFOs to apply for NPDES permits.

See response to Comment ID 0277.1.001.003 for a more detailed discussion.

Comment ID 0466.1.001.005

Author Name: Suarez Julie

Organization: New York Farm Bureau (NYFB)

In contrast to other Bay watershed states, New York's BMPs and certified nutrient management plans (CNMPs) have greater efficacy and impact because they are already utilizing advanced agronomic science in their nutrient management efforts and working off of an elevated standard of water quality protection. For example, New York is nutrient deficient and maintains extensive erosion control because of its progressive CAFO permit program. No other Bay state has accomplished this through their state nutrient management program. New York's CAFO program has been designed with the needed flexibility and rigor to protect water quality while adopting better sciences and management approaches in nutrient planning both in the field and on the farmstead.

For this reason, NYFB strongly objects to detailed federal CAFO regulatory requirements that do not take into account geographic and farmstead specific differences, creating significantly more burden on regulated farms and reducing environmental effectiveness. For example, EPA's CAFO regulations drastically increase paperwork burdens on farms and state regulatory agencies while actually preventing the spreading of manure over a larger number of acres. Given this track record, instilling new planning requirements on a federal basis would not be productive given the vast differences in soil types, contours and climate that exist throughout the Chesapeake Bay Watershed.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. By June 30, 2012, EPA plans to propose revisions to its Concentrated Animal Feeding Operations (CAFO) regulations under the Clean Water Act. EPA may propose expanding the universe of CAFOs by means which might include making it easier to designate an animal feeding operation as a CAFO or increasing the number of animal operations that would qualify as CAFOs. EPA may also consider requiring permitted CAFOs to implement "next generation" nutrient management plans and requiring off-site manure transfer reporting and recordkeeping. EPA will take final action on the CAFO regulations by June 30, 2014. These measures represent EPA's intent to fine-tune the CAFO regulations to ensure they are effective at achieving the objectives of the CWA with special intentions to the Chesapeake Bay TMDL. EPA acknowledges the critical role that states play in providing the appropriate financial and technical assistance necessary to ensure that individual farms are in compliance with federal and state regulations.

Comment ID 0468.1.001.008

Author Name: Harry Jennifer

Organization: PennAg Industries Association

7. We do not support the notion of increasing NPDES permitted activities obligation to Bay restoration. In our

experience, requiring a majority of farming operations to obtain a CAFO will not yield a clean Chesapeake. Permits and paperwork do not equal clean water. People and Practices will restore the Bay.

Response

EPA disagrees that the TMDL require AFOs to apply for NPDES permits under the CWA. See response to Comment ID 0277.1.001.003 for further discussion.

Comment ID 0482.1.001.002

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

Instead of letting states build on that success, EPA is attempting to impose a top-down, federal regulatory approach on the agriculture and forestry communities. Thus, it appears that EPA's proposals are attempts to drive livestock and agricultural operations out of the Chesapeake Bay region through unnecessary and overly burdensome regulation. In fact, by attacking efficient practices, such as increasing crop yields by using nutrients or increasing animal production efficiencies, EPA may impede agriculture's progress as a steward of the environment.

Response

Thank you for your comments about EPA involvement with the livestock and poultry industry. EPA wants to assure you that we strongly believe that agricultural land use activities are far better for the environment than converting these valuable lands to urban. We have recognized that the agricultural sector has made a lot of progress in implementing a variety of management programs and will be relied upon to continue to help restore the Chesapeake Bay. Yet, after 25 years of efforts to restore the Bay, the Bay remains impaired. For this reason it is time to pursue newer, bolder approaches to achieving the necessary controls.

Comment ID 0586.1.001.004

Author Name: Fischer Micaela

Organization: The Pew Environment Group

Despite past and continuing efforts, including financial incentives, technical assistance, education and voluntary programs, there is much more that agriculture can do throughout the watershed to reduce its impact on the Bay. In particular, we believe that improved management of the huge volumes of manure generated by large-scale operations would result in significant and cost-effective pollution reductions from agricultural sources, and we urge the Agency and the states to place a renewed focus on the management of manure from concentrated animal feeding operations in the context of this TMDL.

We concur with those who stress the importance of maintaining agriculture and agricultural land in the Bay watershed region, but we also believe that releases from agriculture can be curbed dramatically without losing the farming that is an important economic sector and cultural element of the Bay region. In addition, we understand that many individual farmers have adopted important conservation practices over the years and we commend them for their stewardship initiative. Taken as a whole, however, the agricultural sector-like others in the Bay region-has yet to take all of the actions that will be necessary to restore the Bay and protect it for future generations.

In reviewing the draft WIPs, we are disappointed to find that the Bay states, for the most part, rely on a business-as-usual model for managing CAFO releases. In our view, they fall far short of what can and should be undertaken.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. EPA has been engaged in detailed discussions with Region 3 States as they are required to update or develop CAFO regulatory programs to conform to EPA's 2008 CAFO regulation. Over the past year EPA has approved state CAFO programs in Virginia, Maryland, West Virginia and are evaluating Delaware's program submission. Discussions with Pennsylvania continue as EPA looks forward to finishing that evaluation in 2011.

The commenter points out that state CAFO programs fall short of what needs to be undertaken. In consideration of proposing a revised CAFO regulation, EPA has announced that it will include a proposed Chesapeake Bay CAFO regulation. A draft of the new regulation is due to be completed by 2012. In terms of any specific provisions to share at this time, EPA is not in a position to do so. EPA refers the commenter to Technical program guidance published pursuant to Section 502 of the Chesapeake Bay Executive Order 13508. That Guidance provides comprehensive listing on management practices that may lay the groundwork for revised regulations.

While the new Chesapeake Bay CAFO regulation is being developed, EPA has the authority under current federal regulations to designate certain additional animal feeding operations as CAFO requiring an NPDES permit.

EPA, over the next several years, as the new Chesapeake Bay CAFO rule is developed will continue to provide oversight and review state CAFO programs including technical standards to determine adequate levels of implementation. EPA will also be tracking 2 year milestone activities that include issuance of State NPDES CAFO permits to again determine program adequacy.

Thank you for your comment.

Comment ID 0586.1.001.010

Author Name: Fischer Micaela

Organization: The Pew Environment Group

--Consider Future Growth

Just as the states must plan for future residential and commercial growth in this TMDL, we believe they must consider the future growth of the animal population and its attendant manure generation. Consideration should be given to two areas of growth. First, future increases in animal numbers or animal density, and secondly, increasing soil saturation levels in certain areas. If national and regional trends continue, the number of individual farms may decline but animal numbers or animal density may still increase. The states should establish plans for managing such growth, with the possibility of prohibiting new or expanded large-scale operations in hotspot areas or making approval of new or expanded operations contingent on the adoption of a full suite of state-of-the-art best practices, such as precision farming. We believe that states must also plan for the contingency, which appears likely under current practices, that increases in soil phosphorus saturation will reach critical levels in certain areas and that additional areas will require P based nutrient management. If these conditions are reached, as they apparently have been in some areas, some farmers may not be able to apply manure to their crops, and excess manure may have to be transported even greater distances.

Response

EPA shares many of your concerns as we recognize that there is widespread over application of fertilizers and manures for a variety of reasons principally focused on obtaining maximum crop yields while minimizing the amount of land needed. We have taken a strong position in the Chesapeake Bay Executive Order Technical Guidance - Section 502 document in that for levels of soil phosphorus above 20% we are recommending zero application of organic fertilizers.

We would anticipate that States because of increasing levels of soil phosphorus levels in a number of counties throughout the Chesapeake Bay would commit to developing a science based comprehensive plan that address P imbalances over time with the ultimate goal of reaching P agronomic rates for maximum crop yield. Plan components could include:

- Commitment to develop approaches for P management beyond the P index that are consistent with EPA's 502 guidance in order to reach ultimate goal of P agronomic rates.

SERA-17 national phosphorus scientists have been very clear that the P index is an interim step and won't solve the P imbalances in high density animal areas. Furthermore, the USDA CEAP study indicates weaknesses in the current nutrient management approach resulting in 81% of cropland requiring additional nutrient management. Therefore, the P management approach should go beyond the P index and include interim goals that continually move you closer to reaching agronomic P rates such as:

- o Revising P index, followed by
- o Capping manure application at P saturation levels of 35% or greater by date certain, followed by
- o Capping manure application at P saturations of 20% or greater by date certain.

- Commit to developing a plan for targeted education/outreach to producers to explain the need to phase out manure application on high-P soils.

- Commit to work with USDA to secure federal funding to help with this transition. For the poultry sector this could be a commitment to work with NRCS, Conservation Districts, Poultry integrators, and other private investors to encourage producers to sign up for the NRCS EQIP Alternative Manure Use program. For dairy, this could be a commitment to work with USDA to fund

dairy manure storage facilities were needed to help with transition.

- Commitment to explore alternative uses for manure.
- Commit to date by when this new P management approach will be incorporated into the revised Nutrient Management Plans

Comment ID 0586.1.001.013

Author Name: Fischer Micaela

Organization: The Pew Environment Group

From review of the large body of literature on agriculture and water quality, we conclude that farming and livestock operations can reduce their loadings to the Bay significantly and thereby mitigate the need for Bay communities to undertake at least a portion of the most expensive alternatives. Farmers should not bear a disproportionate share of the Bay's "pollution diet," but should shoulder a fair share of the burden required to restore this national treasure. We are hopeful that the agricultural community, the Bay states and EPA will rise to the challenge with innovative and effective programs for controlling CAFO-related nutrient releases.

We appreciate the opportunity to share our perspective.

Response

EPA welcomes the opportunity to hear more of PEW's detailed perspectives on this very important topic. Although it is valid to assert that there seems to be a strong reliance to garner the majority of nutrient loads from agriculture, EPA will clearly be cognizant that all sectors that have an economic stake in the Chesapeake Bay as well as contributing pollution will shoulder a fair and equitable distribution of the restoration program. As you are aware municipal treatment plants have made much progress in reducing nutrients and they will continue to carry a significant financial investment to achieve required load reductions. Reductions from the urban sector has been a more recent concern to state agencies as well as EPA. Agriculture has in fact made a fair amount of progress yet need to also push harder to implement not only traditional BMPs but also look to the private sector to support advance manure technologies which has been proposed in Pennsylvania.

Comment ID 0681.1.001.004

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

The draft TMDL also states on page 8-16 that "CAFO permitted facilities are assumed to have a control that all animals subject to CAFO permit conditions must receive feed management" and that EPA "assumes that all animals except dairies (e.g., poultry and swine) on AFOs that are not subject to CAFO permit conditions are assumed to receive feed management."

Including feed management as a mandate is another example of an overly broad application of a BMP that may not be the appropriate tool in all circumstances. Site-specific conditions, such as variation in supplemental phosphorus sources, may make reductions in feed phosphorus impractical. In this case, mandating the goal is more appropriate than mandating a specific BMP. The goal in this case is reduction in the phosphorus land application rate where phosphorus is not needed. Any number of alternatives may be used to meet this goal. Virginia acknowledges that the TMDL states "jurisdictions may meet the WLA assumptions by...applying a different set of practices that would result in equivalent nutrient and sediment reductions;" however, the associated nutrient reduction of an alternative, equally effective BMP may not be as easily calculated by the model and therefore limits necessary flexibility for operations to determine the most effective suite of BMPs and for those BMPs to be accounted for in the model.

Recommendation: Remove the sentence on Page 8-16 that begins "EPA also assumes"

Response

EPA acknowledges that jurisdictions may meet the WLA assumptions by applying a different set of practices that would result in equivalent nutrient and sediment reductions. EPA is committed to work with all jurisdictions to ensure that any "new" BMP that has not been previously reported for use in the model undergoes the Chesapeake Bay Program's BMP-approval protocol to ensure that it is properly defined and assigned an effectiveness estimate so that jurisdictions can get the appropriate credit for implementation of alternative practices. Reference for BMP Protocol: http://archive.chesapeakebay.net/pubs/Nutrient-Sediment_Control_Review_Protocol.pdf

Comment ID 0746.1.001.026

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

C. Point Source (CAFO)-related Issues

As recognized by the Draft TMDL's proposed allocations (see Table 1 above), the increased CAFO-related reductions in Nt and Pt loadings which will be required if the Draft NY WIP is implemented would be "de minimis", because New York's existing CAFO permitting program has already minimized CAFO-related nutrient related additions to Waters of the United States/Waters of [New York] State.

Despite the tremendous work that has been done by New York CAFOs and the regulation of them by NYSDEC which goes beyond EPA's CAFO requirements, EPA in its comments on the Draft New York WIP has indicated both that there is not a "reasonable assurance" that the nutrient reductions called for in the draft WIP will be achieved and secondly that significantly more agricultural-related reductions will be needed. For example, the Draft TMDL includes the following additional CAFO-related "federal Backstops":

- AFOs of any size should be regulated as CAFOs;
- AFOs of any size will have to develop a Comprehensive Nutrient Management Plan (CNMP);

- Large CAFOs will be required to use Precision Feed Management;
- CAFOs of any size will be required to have a manure storage and will be prohibited from spreading manure during the winter;
- All manure applied to crop fields will need to be injected;
- All farms will be required to have ammonia emission controls on their facilities.

Thus, the main additional nutrient-related reductions that can be projected if the federal CAFO-related Backstops are imposed would be by forcing many, if not all, small AFOs to become CAFOs. Assumedly, this would be formalized through a modification of New York's CAFO SPDES Permits so that AFOs within the New York Bay Watershed, modifying the definition of a CAFO by significantly lowering the minimum numbers of animals, perhaps to as low as one must obtain Permit coverage and comply with all Permit mandates. This would likely be done by NYSDEC.

Among the costs this would impose on each newly defined CAFO is approximately \$8,000 a year in Certified Nutrient Planners fees to prepare CNMPs and supporting documents. In addition, significant monies would also have to be invested in structural BMPs and the non-structural BMPs described in New York's draft WIP.

As recognized in New York's proposed WIP, New York's large and medium CAFOs are already leading the nation in reducing CAFO-related nutrient and sediment runoff from enters waters of the United States. Some examples include:

- New York's CAFO SPDES Permit and its mandated best management practices (BMPs) is being implemented on New York farms. It is the Coalition's understanding that CAFO-related inspections by both EPA and NYSDEC representatives have found a high level of compliance. Further, that most non-compliance issues are related to administrative (mainly record keeping) requirements rather than with those Permit requirements which are intended to eliminate nutrient and sediment discharges.
- Participation of large CAFOs in the permitting process is believed to be 100 percent.
- The vast majority of medium and large CAFOs have developed a Comprehensive Nutrient Management Plan (CNMP), and many have implemented dozens of structural and managerial practices changes.
- In many instances, the New York Natural Resources Conservation Service (NY-NRCS) standards which CAFO owners and operators must comply with to remain compliant with the CAFO SPDES Permits are stricter than the comparable standards in many of the other Bay States.
- The New York CAFO program, as specified in New York's CAFO SPDES General Permits, is clear, actively implemented and enforced. It has State-wide applicability, is practical and is based on sound science.
- When the original CAFO SPDES Permit was issued, New York did not have a working P index in place. The New York Phosphorus Working Group was formed to address this issue. Members included Cornell faculty and staff from the Departments of Crop and Soil Sciences and Biological and Environmental Engineering, staff from the New York City Watershed Agricultural Program, as well as staff from the New York State Soil and Water Conservation Committee and NRCS. The Group worked diligently over a two-year period to mesh field practices with current science to formulate weighting factors that combine to determine the P Index runoff risk score for a particular field. Subsequently, private crop consultants and field staff from soil and water conservation districts and NRCS helped to field test the P Index. The

P Index is now an integral part of CAFO-required landspreading practices. It has become a practical management tool that was designed so that higher scores can generally be reduced by selecting lower risk practices for implementation. At the end of the day, if a score cannot be managed below a certain threshold, no phosphorus can be applied to that field from either fertilizer or manure sources. The Index has been supported by dozens of field training sessions, publication of a P Index User's Manual, and a downloadable P Index spreadsheet calculator.

- While New York had had a Nitrogen Index in since the early 1990s, it was updated when the second New York CAFO Permit became effective. The updated N Index is based upon soil hydrologic group and a seasonally weighted rainfall factor. NY-NRCS provided updated rainfall data that were interpolated to the township level, and this serves as the basis for the revised New York N Index. The addition of town-ship-based data was especially important because the earlier N Index was expressed on a county-average basis, and there are some counties in New York State with substantial rainfall differences from township to township. Also, appropriate N leaching risk reduction practices were updated to require that fall manure applications be made on fields with a live sod or cover crop in high leaching risk soils and locations.
- New York, through the work of Cornell University and its County Soil & Water Conservation Districts, has become the regional leader in Precision Feed Management. This is both incorporated into the draft New York WIP and is an identified Federal Backstop.

If these additional mandates are placed on New York CAFOs and the smaller AFOs, USC estimates that the requirements will add about 800 regulated farms to a program that has been successful but is financially strained. This, in turn, may lead to reducing the number of cows and heifers within the New York portion of the Bay Watershed by 50%.

Response

Thank you for your comments. Good progress has been made on reducing sediment, nutrient, and pesticide losses from farm fields through conservation practice implementation in the Chesapeake Bay region, but a significant amount of conservation treatment remains to be done to reduce nonpoint agricultural sources of pollution. The greatest concern in regards to nutrient and sediment loads from CAFOs and AFOs is from the lack of implementation of nutrient management on the cropland under their control as well as the lack of assurance and verification that nutrient management planning tools are actually being implemented by CAFOs and AFOs on their cropland. According to a recent NRCS study, cultivated cropland represents only about 10 percent of the land base in the Chesapeake Bay watershed. With the current level of conservation treatment, cultivated cropland delivers a disproportionate amount of sediment and nutrients to rivers and streams and ultimately to the Bay. Of the total loads delivered to rivers and streams from all sources, cultivated cropland is the source for 25 percent of the sediment, 27.5 percent of the phosphorus, and 32 percent of the nitrogen. There is significant room for improvement in reducing the amount of nutrients and sediments from agricultural lands. All CAFOs are required to implement nutrient management planning under their SPDES permits in NY. Currently, EPA has the authority to designate small AFOs as CAFOs, and EPA will be exploring the use of that authority in the Chesapeake Bay watershed.

Comment ID 0766.001.002

Author Name: Schafer Christa

Organization: Delaware County Board of Supervisors

OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

WHEREAS, EPA allocations would require all farms to meet Concentrated Animal Feeding Operations (CAFO) standards, a standard that would bankrupt most farms

Response

Please see response to comment 0080-cp.001.002

22.4 - SSOS

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

22.5 - CSOS

Comment ID 0254.1.001.006

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

2) Outfall 001 and Combined Sewer System

The WLAs proposed by DDOE in its Draft WIP (Table 4)[FN 1] for Outfall 001 and the CSOs remaining after completion of the LTCP are those developed by employing the LTCP model. These WLAs have been calculated from LTCP collection system model predictions as the arithmetic average for the wet weather (storm) events for the Bay TMDL model hydrologic period (the years 1991 through 2000) using rainfall recorded at Reagan National Airport.

However, Section 6 of the draft TMDL Report establishes a critical 3-year period within the hydrologic period as the benchmark for determining attainment of water quality standards (WQS). In order to comply with the critical period requirement, WLAs for Outfall 001 and CSOs remaining after completion of the LTCP would have to be based on the average of the years 1993 through 1995. WLAs calculated from LTCP model predictions as the arithmetic average for the wet weather (storm) events for the Bay model critical period (years 1993 through 1995) using rainfall recorded at Reagan National Airport are summarized as follows:

[Figure. Please see pg 5 of original document 0254.1]

If the critical period applies, the WLAs included in the Draft WIP for Outfall 002 and the remaining CSOs (See footnote 1 to these comments) will have to be revised to include the allocations in the table above rather than the WLAs in Table 4 to the Draft WIP.

Because discharges from Outfall 001 and the CSOs remaining after completion of the LTCP will vary due to rainfall conditions, the Permit includes performance, monitoring, and continuing post-LTCP construction evaluation of these discharges. Therefore, DC Water has asked DDOE to include in its final WIP a statement that compliance with these WLAs for discharges from Outfall 001 and the CSOs remaining after completion of the LTCP shall be based on the arithmetic average of LTCP model predictions for the wet weather (storm events) for the years 1991 through 2000, or the Critical Period years (whichever period is applied by EPA), using rainfall recorded at Reagan National Airport. Such a statement in the final WIP is necessary to provide clear guidance to permit writers and to avoid any suggestion that the WLAs for these discharges can be complied with under all rainfall conditions. DC Water requests that EPA include this same statement in the final TMDL as well.

[FN 1] These WLAs are 134,073 lbs/yr TN, 4,304 lbs/yr TP, and 438,634 lbs/yr TSS for Outfall 001; and 3,809 lbs/yr TN, 810 lbs/yr TP, and 105,350 lbs/yr TSS for the CSO Outfalls remaining after LTCP implementation.

Response

This issue has been discussed between EPA, WASA and VAMWA over a lengthy period of time. The municipalities want to use the 10 year average as their captured CSO WLA. EPA agreed with this approach provided the municipalities monitor their discharges and if they fail to meet the WLA and do not obtain credits, they will be in violation of permit limits. For the Blue Plains permit, EPA used the highest load during the 10 year period, not the average; and essentially retired the load for Outfall 001. WASA is required to monitor Outfall 001 and if the underlying assumption is incorrect, the limit will be revisited. Accordingly, EPA does not agree that the commenter's proposed language should appear either in the DC WIP or the Bay TMDL.

Comment ID 0419.1.001.001

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

Exhibit A to these comments contains a description of the Communities' combined sewer systems (CSSs) and CSO control programs. [Comment Letter contains additional information in the form of an attachment. Please refer to Exhibit A of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]. The following overview describes the key program elements and system features that are relevant to establishing appropriate WLAs for these systems.

II. OVERVIEW OF RELEVANT PROGRAM ELEMENTS AND SYSTEM FEATURES

A. Program Elements

All of the Communities adopted the demonstration approach authorized in EPA's CSO Control Policy [FN1] in their long-

term control plans (LTCPs). Each Community is implementing a different Virginia Department of Environmental Quality-approved CSO control program based on local factors and circumstances, as provided under the CSO Policy. Alexandria's approved LTCP employs a capture and treat approach to CSO control, and continues implementing the Nine Minimum Controls (including maximizing flow to the Alexandria Sanitation Authority's advanced water reclamation plant) as a requirement of its permit. Lynchburg's LTCP provides for total separation of its combined system; however, the City is presently updating its LTCP and may decide to convey and treat combined flow in the remaining downtown area rather than separating that part of its system. Richmond's LTCP calls for conveyance, storage, and treatment of combined flows as well as limited sewer separation.

B. Status of Program Implementation

The Communities are at different stages in the implementation of their LTCPs, which, collectively, involve capital investments totaling approximately \$1 billion in today's dollars and millions of dollars in annual operation and maintenance costs. The City of Alexandria has progressed to the post-construction monitoring phase, and employs a target-of-opportunity approach for re-development projects to separate combined sewers under its non-regulatory Area Reduction Plan. Lynchburg has separated approximately 50 percent of its combined system as required by its VPDES permit and State consent special order at a cost of approximately \$168 million. Richmond has completed two phases of its three-phased LTCP at a cost of approximately \$267 million as required by its VPDES permit and State order. Both the Lynchburg and Richmond orders establish schedules for construction of the controls in their LTCPs. Neither city is expected to complete construction until after 2025 given the magnitude of the estimated remaining costs in today's dollars (\$326 million for Lynchburg, and \$500 million for Richmond) and highest rates in the state as a percent of median household income (MHI). Alexandria, Richmond and Lynchburg are required by their VPDES permits to continue implementing the Nine Minimum Controls, including maximizing combined flows to their WWTPs.

C. System Features

The Communities' discharge combined sewer flow from both individual CSO outfalls and from the WWTPs serving their CSSs. Discharges from CSO outfalls occur during rainfall events that produce combined flows exceeding the wet weather design capacities of the conveyance, storage and treatment facilities. In order to meet the applicable water quality-based requirements, the Communities have either significantly reduced or are in the process of significantly reducing the volume, duration and number of discharges from their CSO outfalls by conveying, storing and treating the combined flows and/or by separating parts of their CSSs. Combined flows that do not exceed the design capacities of the conveyance, storage, and treatment facilities are conveyed to and treated at the WWTPs serving the Communities. Currently, combined flows conveyed to the WWTPs receive complete treatment. Consistent with the CSO Policy, however, future controls may include partial treatment of combined sewer flows to meet bacteria WLAs.

The illustration in Figure 1 reflects system features that are common to all of the Communities in the context of the input to the Bay Watershed Model.[Please see page 3 of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]

(1) Dry Weather Flow (DWF): DWF is the sanitary portion of the flow discharged from the WWTP. Annual changes in this flow are primarily associated with the population growth of the community in the same way as the flows for a community served by a separate sewer system. Pollutant concentrations are controlled by the design and operation of the WWTP facilities.

(2) Combined Sewer Captured (CS-C): CS-C is the sanitary and storm water portion of the flow captured, stored, treated and discharged from the WWTP. The CS-C portion of the WWTP flow is highly dependent on the amount of rainfall received during a given year. The amount captured, stored and treated at the WWTP is also a function of how the rain falls (i.e. less is captured from an intense summer storm as compared to a slow all-day rainfall). In general, as improvements to the CSS are implemented that capture more CSO flows (and if these flows are treated at the WWTP), the annual average flow at the WWTP will increase. The Discharge Monitoring Report (DMR) flows (comprised of DWF and CS-C) reported by the WWTPs will vary based on the rainfall pattern received in a given year. For some storms, WWTPs will be able to provide full treatment and therefore pollutant concentrations will be the same as the DWF. For other storms, pollutant concentrations will be higher than the DWF even though treatment is being provided at the WWTP.

(3) Combined Sewer Overflow (CS-O): CS-O is the portion of the flow that is not captured by the intercepting system and is released at the permitted CSO outfalls. The amount of CS-O released from the outfalls is a function of the total rainfall and how the rain falls as described for CS-C above. In addition, the pollutant concentration in the CS-O will vary with each storm. The CS-O is reduced by separation or by capture and treatment.

The City of Richmond's CSS offers a good example of the way that above described system features operate in response to wet weather events. The City has been operating its 50 million gallon combined sewer storage facility for about 30 years. After storm events, the stored CS-C flow is sent to the WWTP over a two-day period. Thus, the DMR data includes both DWF and CS-C flow as shown in Figure 2.

Figure 2 - Current Richmond WWTP Annual Average Flow [Please see page 5 of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]

Figure 2 is the actual annual average flow, in million gallons per day (mgd), for the Richmond WWTP for the period 1991 through 2006. As can be seen in this figure, the flow discharged from the WWTP is significantly influenced by the rainfall pattern from year to year. For example, the average WWTP flow for the period between 1991 and 2000 is about 50.7 mgd. During 1994, annual average flow was about 58 mgd, and in 2004 the annual average flow was about 63 mgd. The difference in flows is associated with the amount of CS-C treated at the WWTP.

The DWF changes for Richmond are associated with the growth in Goochland County, which started sending DWF to Richmond in 2006. The Richmond WWTP has a permitted DWF capacity of 45 mgd. This is to ensure that treatment of additional sanitary flow is provided to accommodate additional customers. Figure 3 shows that if the WWTP had been operating at its full permitted DWF capacity, the total flow from the WWTP would have increased, even though the amount of CS-C treated at the WWTP would have remained the same.

Figure 3 - Future Richmond WWTP Annual Average Flow [Please see page 5 of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]

D. System Nutrient and Sediment Loads

Approximately 95 to 99 percent of the wet weather CSS flow that either is discharged through CSO outfalls or conveyed to the WWTP (or other treatment facility) for treatment is storm water. Therefore, wet weather CSS flows generally are large in volume, but the concentrations of TN and TP in these flows are small when compared to the nutrient

concentrations in separate sanitary sewer system flows. The Communities' CSO control programs reduce the discharge of TN and TP in both the sanitary and storm water components of their combined flows by maximizing conveyance and complete treatment of combined flows within the design capacities of their plants as part of the Nine Minimum Controls required by EPA's CSO Control Policy.

The Communities have already achieved almost all of the nutrient load reductions and much of the sediment load reductions associated with their CSO control programs by virtue of having maximized combined flows through complete treatment. Furthermore, independent of their CSO control obligations, the Communities are currently on target to achieve nutrient reductions at their WWTPs by the end of 2010 as called for by the Virginia tributary strategies. [FN2, FN3] While Richmond's LTCP (and possibly Lynchburg's LTCP) calls for the installation of additional capacity at the WWTPs to treat larger combined flow volumes in the future, this capacity is associated with disinfection facilities. This additional capacity will transfer some of the nutrient and sediment load now discharged from CSO outfalls to the WWTP, but will not change the total nutrient and sediment load from the CSS.

III. VIRGINIA'S DRAFT WATERSHED IMPLEMENTATION PLAN REFLECTS THE CORRECT APPROACH FOR ESTABLISHING WLAs FOR COMBINED SEWER SYSTEMS

The WLAs proposed for the Communities' CSSs in Virginia's September 2010 draft Phase I Watershed Implementation Plan (WIP) reflect the Virginia Department of Environmental Quality's (VDEQ's) and the Virginia State Water Control Board's longstanding familiarity with the Communities' systems and control programs. These agencies have reviewed and approved the Communities' LTCPs, issued and reissued VPDES permits for the CSSs for over 20 years, and issued consent orders establishing schedules for the implementation of Richmond's and Lynchburg's LTCPs. The WIP also reflects the considerable information that the Communities have shared with VDEQ over the last year related to the CSS nutrient and TSS loads. Virginia's approach to establishing WLA for the Communities embodied in the WIP is summarized in Table 1.

Table 1 - Virginia WIP's Approach for Establishing CSS WLAs [Please see page 7 of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]

WLAs for the dry weather flow treated at the Communities' WWTPs ("DWF" in Figure 1 above) are correctly included in the WLAs assigned in the WIP to the significant dischargers, which are based on the Tributary Strategy concentrations. The Richmond and Lynchburg Tributary Strategy concentrations for the dry weather TN, TP, and TSS are 8.0, 0.5, and 30 mg/L, respectively. The ASA Tributary Strategy concentrations for the dry weather TN, TP, and TSS are 3.0, 0.18, and 6 mg/L, respectively. The WWTP permit must contain a performance standard in the form of a concentration limitation for wet weather flows above the permit dry weather design flow capacity, which will encourage operators to empty CSO storage facilities as fast as possible (maximize wet weather treatment). This will prepare the storage facilities to capture more volume from the next storm and have the net effect of increasing the annual volume treated, which will maximize the overall pollution removal. This is consistent with EPA's CSO Control Policy requirements to maximize the flow treated at the WWTP. The Table 1 footnotes must be included in the TMDL report to provide the proper guidance to the NPDES permit writers and document the assumptions used to establish the WLAs.

The CSS WLAs proposed by Virginia in its WIP correctly assign WLAs to the two sources of nutrient and TSS loads from the Communities' combined sewer systems as summarized in Table 1. Table 1 includes (1) flows that are captured and conveyed to the WWTPs for treatment ("CS-C" in Figure 1 above), and (2) flows that exceed the conveyance and

treatment capacity of the CSS and WWTP and are discharged from CSO outfalls ("CS-O" in Figure 1 above). The WIP correctly shows the WLAs for the City of Alexandria's CSO outfalls (UCS-O") and captured combined sewer flow ("CS-C") treated at the ASA's WWTP as separate allocations because the CSO outfalls and the WWTP are permitted separately. The WLAs for Richmond's and Lynchburg's captured combined sewer flow and CSO outfalls are correctly aggregated (shown as "Aggregate CSS" in the Tables) in Virginia's WIP. Aggregating the CSS WLA's affords Richmond and Lynchburg the flexibility to maximize CSS flows to their WWTPs (as required by their permits and EPA's CSO Control Policy) without risk of exceeding the WLAs in the WIP.

The WIP correctly describes the basis for Virginia's proposed CSS WLAs, including event mean concentration data for the CSO outfalls, model-predicted 1991-2000 CSO discharge volumes, and WWTP flow and concentration data used to derive the WLAs. See WIP at pages 32-35. EPA should adopt the approach reflected in Virginia's WIP, which bases the WWTP WLAs on the DWF and CS-C average of the '91-'00 flows and footnote to the allocations to provide guidance to the permit writer to use a performance standard (concentration, not loads) for flows above the DWF design capacity. Virginia's approach would avoid consuming allocations needed by other sectors, promote maximizing flow through the WWTP consistent with the CSO Control Policy, and will better reflect the loading in the water quality model associated with the actual '91- '00 hydrology. Further, the WIP provides permitting guidance that is fully consistent with the CSO Control Policy, NPDES permit regulations, and EPA guidance pertaining to wet weather permitting as reflected in the following overview.

The CSO Control Policy requires CSO communities to develop and implement LTCPs that provide for compliance with the applicable water quality-based requirements of the Clean Water Act. CSO communities may base the LTCPs either on the "presumptive" approach where the LTCP is presumed to provide for compliance with the applicable requirements if it meets one of several specified discharge criteria, or the "demonstration" approach where the community must demonstrate through data, modeling and/or other acceptable methods that its LTCP will provide for compliance with applicable requirements. See CSO Policy at II.C.4. As explained above, all of the Communities have selected the demonstration approach. Permitting authorities are instructed to include LTCP-derived performance standards and requirements based on average design conditions in NPDES permits issued to those CSO communities that have developed LTCPs using the demonstration approach. See CSO Policy at IV.B.2.c.

Water quality-based effluent limits are numeric performance standards for selected CSO controls, such as concentration limitations for wet weather at the WWTP or flow or volume capacity of the facilities identified in the LTCP. See CSO Policy at IV.B.2.c. Rainfall durations, frequencies and intensities vary from storm to storm and across the CSO watersheds. Additionally, the periods between rainfall events vary and cause loads to build-up and wash off at different rates, which makes it infeasible to determine numerical mass effluent limitations for wet weather flows (WWFs) associated with the CSS. The controls in the LTCP, including WWF treatment controls at the WWTP, represent Best Management Practices (BMPs) that may be designed to meet the CSO related WLAs from the TMDL. See 40 C.F.R. § 122.44(k) and 40 C.F.R. § 122A4(d)(I)(vii)(B). The WLAs proposed in the WIP were developed based on the LTCP performance standards, which should achieve the WLAs using the same modeling that EPA and/or the Communities used to derive the WLA for wet weather flows associated with operating the CSS. [FN4] See 40 C.F.R. § 122.44(d)(I)(vii)(B). The LTCP performance standards are the water quality-based effluent limitations for WWFs associated with facilities in the approved LTCP.

Virginia's approach applies equally to each of the 64 CSO communities in the Chesapeake Bay watershed and should be adopted across the watershed.

IV. THE DRAFT TMDL ERRONEOUSLY FAILS TO INCLUDE THE WLAs PROPOSED BY VIRGINIA IN ITS WIP

While the Draft TMDL incorporates the TN and TP WLAs proposed in the WIP for the CSO outfalls, it erroneously fails to include any WLAs for captured CSS flows treated at the WWTPs. Further, the Draft TMDL reduces the TSS WLAs for the CSO outfalls by 16 to 31 percent, with no explanation of the basis for the TSS WLAs or how they were calculated. These unexplained departures from the WIP are fundamentally inconsistent with the above-described technical, legal, and policy rationales. The Communities urge EPA to incorporate the CSS WLAs and related text in the WIP in the final TMDL.

A. EPA's proposed approach for establishing the CS-C portion of the WLAs

Based on recent meetings and communications among representative of EPA, VDEQ, and the Communities, we understand that EPA does plan to include WLAs for captured combined sewer flow in the final TMDL. However, as reflected in an October 27, 2010 email from EPA (Exhibit B), EPA intends to establish these WLAs based on a WWTP fixed design flow capacity rather wet weather-driven CSS flows actually treated by the WWTPs. [Comment Letter contains additional information in the form of an attachment. Please refer to Exhibit B of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]. We believe this approach is arbitrary and fails to reflect the way that a CSS actually works as described above. For these reasons, EPA's approach is not the correct way to establish the WLAs. However, if EPA continues to insist that the WLAs for captured CSS flow treated at the WWTPs be established using fixed annual average flows, the final TMDL should include the WLAs identified in Table 2 as follows:

Table 2 - EPA's Proposed Approach for Establishing the CS-C Portion of the WLAs [Please see page 10 of the original letter (Docket ID EPA-R03-OW-2010-0736-0419.1)]

The WWTP WLAs in Table 2 are based on the Tributary Strategy concentrations and annual average flows needed to reliably operate the WWTP during years with high rainfall. ASA's TN concentration would be based on 3 mg/L for flows at and below 54 mgd and 4 mg/L for flows above 54 mgd. WWTPs served by CSSs are susceptible to the effects of snow melts and potentially toxic spills on roadways that may enter the CSS through storm water curb inlets. For example, in 1996, the Richmond WWTP was upset by high salinity runoff water associated with a snow melt event. It took over a month to recover BOD treatment after this event, but nitrification took much longer. If these types of events take place in December or January, it will be difficult to meet the WLAs even on the annual average basis. Additionally, colder wastewater temperatures are common in years with heavy snowfall such as in February 2010 when the Richmond WWTP average monthly temperature was 10.7°C. While the ASA WWTP treats a lower percentage of CSS flow compared to Richmond and Lynchburg, it too may experience nitrification inhibition during extended winter wet weather accompanied by snow melt. WWTPs that serve CSSs should have WLAs that reflect the site-specific treatment challenges that occur during the winter periods.

[FN1] 59 Fed. Reg. 18,688 (April 19, 1994). The Policy has been incorporated by reference into the Clean Water Act (CWA). See CWA § 402(q), 33 USC. § 1342(q).

[FN2] Commonwealth of Virginia, Office of the Governor. Chesapeake Bay Nutrient and Sediment Reduction Tributary Strategy for the James River, Lynnhaven and Poquoson Coastal Basins. March 2005.

[FN3] Commonwealth of Virginia, Office of the Governor. Chesapeake Bay Nutrient and Sediment Reduction Tributary Strategy for the Shenandoah and Potomac River Basins. March 2005.

[FN4] 40 C.F.R. § 122.44(d)(1)(vii)(B) requires the permitting authority to ensure that effluent limits developed to protect a narrative or numeric water quality standard are consistent with the assumptions and requirements of any available WLA for the discharge prepared by the State.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. EPA understands commenters concern relating to assigning loads to combined sewer systems. EPA and VA DEQ have worked to resolve these matters as can be seen in the final TMDL. EPA will continue to work on proper implementation procedures through the NPDES permitting process.

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to comment 0501.1.001.005 for more information regarding funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems.

Comment ID 0463.1.001.011

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

The CSS operates as a system; therefore it is inappropriate to disaggregate the CSS loads to smaller segments that discharge into the same TMDL segment.

Response

The WLA allocations for the CSS for Alexandria, Richmond, and Lynchburg have been established using different methodologies as each of the systems are in different stages of implementation of the CSO Long Term Control Plan (LTCP). There are two WLAs established for Alexandria's CSS. One WLA has been developed for the WWTP and will be incorporated into the VPDES Watershed General Permit. Another WLA has been established to address loads resulting from overflows from the collection system. This WLA will be addressed by the VPDES WWTP Individual Permit. For Lynchburg and Richmond, these WLAs are for loads discharged by the cities' CSS and reflect estimated annual average loads discharged from both their permitted CSO outfalls

and CSS flows discharged by their treatment plants. The aggregated CSS WLAs will accommodate the transfer of nutrient and sediment loads from the cities' CSO outfalls to their treatment plants as additional CSS conveyance, storage, and treatment capacity is constructed in the future. Further, it is anticipated that a portion of these aggregated WLAs will need to be transferred to the MS4s at some point in the future to reflect combined sewer separation projects completed after establishment of the TMDLs. Specific WLAs for the WWTP and the CSO will be determined from the aggregate WLA at the time of permit issuance and will be based upon state of LTCP implementation.

Comment ID 0522.1.001.001

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

We own and operate a combined sanitary and separate storm sewer system within the Chesapeake Bay watershed. The City of Richmond knows that the Draft TMDL is fundamentally and materially flawed as a technical matter, especially with regards to the wasteload allocations assigned to cities with combined sewer systems. These issues are thoroughly documented in the Comments on the Draft Chesapeake Bay TMDL by the Alexandria Sanitation Authority, and the Cities of Alexandria, Lynchburg, and Richmond, Docket Number EPA-R03-0W-2010-0736, November 8 2010 attached to this letter. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0522.2 and 0419.1] We request that EPA fully consider and address all of these comments, which we support and hereby incorporate by reference as if fully set forth herein.

Response

Commenter has incorporated by reference comments that are addressed by EPA elsewhere in the response to comment document. Therefore, no additional comment is required here.

Comment ID 0681.1.001.006

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

Richmond/Lynchburg - CSO Communities - EPA plans to base WLAs on "full" design capacity of Richmond POTW (75 MGD) and a separate CSO WLA; this differs from VA approach of using dry weather flow capacity of POTW (45 MGD) and separate WLA for CS - overflows and CS - captured. EPA's backstop only provides WLAs for Richmond based on a POTW flow of 45 MGD and the VA CSO proposed WLAs [if delivery factors are set to 1.0]. With the approach proposed in the TMDL, during dry years the backstop WLAs are too high, effectively taking allocation away from other sources, and in wet years it is not clear whether the implementation approach EPA contemplates with their backstop allocation will adversely impact local water quality since it may result in less CSO treated by the treatment plant. The current Virginia implementation approach for CSOs used over the past 25 years is superior to the approach proposed by EPA and protects local water quality.

Recommendation for Richmond/Lynchburg: Base the TMDL allocations for Richmond and Lynchburg on the current Virginia implementation approach.

Response

Based on additional information from VA, EPA agrees that the "full" design capacity of 75 mgd for Richmond is inappropriate for use in assigning the WLA to the WWTP and has accepted VA's approach of using 45 mgd plus an additional wet weather flow to calculate the WLA. The WLA is for loads discharged by the city's CSS and reflect estimated annual average loads discharged from both the permitted CSO outfalls and CSS flows discharged by the treatment plant. The aggregated CSS WLA will accommodate the transfer of nutrient and sediment loads from the city's CSO outfalls to the treatment plant as additional CSS conveyance, storage, and treatment capacity is constructed in the future. Further, it is anticipated that a portion of the aggregated WLA will need to be transferred to the MS4s at some point in the future to reflect combined sewer separation projects completed after establishment of the TMDLs. Specific WLAs for the WWTP and the CSO will be determined from the aggregate WLA at the time of permit issuance and will be based upon state of LTCP implementation.

22.6 - NPDES DISCHARGE

Comment ID 0334.1.001.008

Author Name: Troutman John

Organization: Buchart Horn, Inc.

EPA has had the opportunity to comment on draft NPDES permits showing annual loads, offsets, trading program, and retirement of on lot systems. Why has EPA failed to comment during the draft period and final permits have been issued and now offer that offsets and on lot system retirement are not valid. EPA needs to explain their position.

Response

As part of its NPDES program oversight responsibilities, EPA requires PA DEP to submit all draft permits for Chesapeake Bay significant dischargers. EPA has and continues to review and comment on these draft permits. Part of that review includes considering PADEP's basis for the treatment of retired on lot systems as offsets for providing additional WWTP loading. PADEP has provided better documentation that offsets will result in a reduction in existing loads from other sources (e.g., nonpoint sources) and included that information in its WIP.

Comment ID 0509.1.001.001

Author Name: Hankins Joseph

Organization: The Conservation Fund

Section 9- Table 9.4 -pages 35 and 36: This table indicates individual annual WLAs for significant permitted dischargers to meet the proposed amended Chesapeake Bay WQS. In the table on page 9-35 an entry is listed for The Conservation Fund Freshwater Institute with NPDES ID WV0116149, providing TOTN of 5,537 pounds per year and TOTP of 62 pounds per year. The Conservation Fund respectfully disagrees with the figures proposed in Table 9.4 for the referenced permit held by us and we believe that there was an error in calculation of the WLAs based on either the assumed facts of the current permit or the intent as outlined in the Section 9 narrative.

The Conservation Fund was first issued a WV NPDES permit in March of 2005. This permit was updated and renewed in April 2010. Consistent with the WV Tributary Strategy this permit was assigned capped annual mass loadings of TN and TP based on design flows and a minimum technology standard of 5 mg/l TN and 0.5 mg/l TP. In the current permit, each of two outfalls (001 and 002) is permitted until 2013 to discharge 7600 pounds of TN and 760 pounds of TP per outlet (x 2 outlets x 0.5 mgd per outlet) for a total of 15,200 pounds of TN and 1,520 pounds of TP for the discharge permit in total.

As represented by USEPA in the TMDL and in comments back to West Virginia on the first WIP submission, the high backstopping provisions proposed to account for West Virginia's WIP deficiencies would cause these allocations to reduce to mass loading caps based on 3 mg/l TN and 0.1 mg/l TP. Based on the narrative intent and the more stringent high backstopping standard WLA totals for this permit should be closer to TOTN 9,120 pounds per year and TOTP 304 pounds per year.

We believe the WLAs indicated in Table 9.4 for WV0116149 are too low and are not consistent with either the calculation process as stated or the intent in the TMDL narrative.

The WLAs indicated in Table 9.4 would result in required effluent concentrations less than 2 mg/l TN and less than 0.02 mg/l TP at 1 mgd design flows. These concentrations are less than the existing background levels of nutrients in the spring source water for our facility.

Table 9-4. Individual WLAs (Annual) for the 483 significant permitted dischargers to meet TMDLs to address the proposed amended Chesapeake Bay WQS

[Please see pages 3 and 4 of the original letter for the table.]

Response

Please see response to comment 0067.1.001.009

Comment ID 0610.1.001.002

Author Name: Randall Clifford

Organization: Occoquan Watershed Monitoring Program (OWMP)

The draft TMDL backstop provision assigns an annual UOSA WRF nitrogen load allocation of 657,841 pounds, which is a 50% reduction from the currently permitted 1,315,682 pounds. The latter figure itself represents an annual load limitation that was developed only recently for the UOSA facility (2005), and was based on an 8 mg/L total nitrogen (TN) limit at a discharge flow of 54 million gallons per day (mgd). At the time that load limit was being considered, the OWMS voiced strong concerns about the likely detrimental effects on water quality in the Occoquan Reservoir (Attachment A) if such stringent nitrogen limits were imposed on the UOSA facility. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0610.1] As will be explained herein, the concern was that nitrates discharged by the UOSA WRF serve to maintain current water quality conditions in the Occoquan Reservoir, and that reductions of those loads could be expected to have negative impacts on water quality.

Since 2005, the observed data in the reservoir have only served to strengthen the conclusion that the imposition of that technology-based limit was ill-advised, and that the further reductions proposed in the draft TMDL are likely to have the unintended consequence of contributing to water quality degradation in the Occoquan Reservoir. Indeed, there is an increased risk that application of the backstop nitrogen removal provision to the UOSA WRF will contribute to the accelerated release of decades of stored nitrogen and phosphorus from the sediments of the reservoir, and the possibility that those releases will reach the Potomac Estuary.

We do not make these assertions lightly, because it is clear that dramatic overall reductions in nitrogen delivery to the Chesapeake Bay are required to implement the TMDL, and that high performance removals from most wastewater treatment facilities are indicated. However, the body of evidence developed from intensive study in the Occoquan Watershed for many years clearly shows that watershed nitrogen management must be viewed from an overall system perspective, and not simply as an end-of-pipe limit imposed at the water reclamation facility. In short, nitrogen loads discharged from the UOSA WRF should not be assumed to be transported conservatively through the reservoir and into the Potomac Estuary. Instead, the UOSA WRF, the Occoquan Watershed and the Reservoir should be viewed as a single nitrogen management system with the release at the Occoquan High Dam as the point for evaluating of nitrogen limits (as is currently stated in the Occoquan Policy).

Response

Backstop allocation scenarios were designed to have a specific control level on all facilities in the absence of consideration of actual site specific technologies. Thus, backstop allocations in the draft TMDL represented an overall level of control, rather than site specific application. Backstop allocations may not have appear reasonable for facilities in the absence of information relating to specific levels of control or local water quality issues. Backstop allocations were only intended to be used by EPA in the TMDL in the event that other reduction scenarios failed to meet required water quality standards in the Chesapeake Bay. As a result of improvements to the State WIP, the final TMDL will not require these backstop allocations. See Section 9 and Appendix Q of this TMDL.

Comment ID 0681.1.001.007

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

The nitrogen allocation in the WIP for Upper Occoquan Sewage Authority (UOSA) was set at current loads to protect the Occoquan reservoir, the drinking water source for over 1 million people. Nitrate-nitrogen discharged from the UOSA facility is needed to prevent the reservoir from going anaerobic, thereby releasing phosphorus and ammonia-nitrogen from sediments, and fueling algae blooms.

The EPA backstop set the UOSA allocation at 657,841 lbs/yr, exactly one-half of their existing Watershed General Permit allocation that is needed to protect the reservoir. Due to natural processes in the reservoir, the UOSA delivered backstop WLA is 24% of discharged, or 156,880 lbs/yr entering the tidal Potomac River.

In the submitted WIP, of the 39 wastewater treatment plants in the Shenandoah-Potomac basin, 25 received a WLA based on TN = 4 mg/l, 13 based on TN = 3 mg/l, and UOSA based on TN = 8 mg/l.

For the 13 facilities that have a WLA based on TN = 3 mg/l, their total allocations amount to 635,000 lbs/yr below a 4 mg/l based allocation. This more than exceeds the additional delivered load [156,880 lbs/yr] that is needed to set the UOSA WLA so it remains protective of the Occoquan reservoir.

Recommendation: Set the UOSA WLA at their current allocation of 1,315,683 lbs/yr (315,764 lbs/yr delivered).

Response

Please see response to comment 0610.1.001.002.

22.7 - MUNICIPAL DISCHARGE

Comment ID 0039-cp.001.002

Author Name: Austin John

Organization:

The plan and the current Inland Bays PCS share many of the same failings. Specifically, the PCS needs to restrict wastewater to advanced treatment facilities that can achieve significantly more N & P removal, that 5.0 mg/L TN and 3.9 mg/L TP. My analysis indicates <2.0 mg/L TN & <0.03 mg/L TP are needed. At the levels of the current PCS, TMDLs can never be attained. Growth, allowed septic systems, and even new facilities with 5.0 mg/L TN & 0.5 mg/L TP simply prohibit TMDL attainment, because the loads are too great.

Response

Commenter writes that the TMDL established loads for TN and TP are not sufficient to restore the waters of Delaware. Commenter states that wastewater should be directed to and treated by advanced wastewater treatment facilities which can achieve lower reductions of nutrients. While this may be desirable, it is not possible for all locations, particularly those located in rural areas

which are not served by POTWs. Future growth is generally addressed by zoning requirements and is beyond the scope of this TMDL.

Comment ID 0179.1.001.001

Author Name: Curatolo James

Organization: Upper Susquehanna Coalition

Why is it that the TMDL is not based on equal treatment of all sectors? The EPA is forcing all Sewage Treatment Plants to go to "limit of technology". Why was this same concept not used for the other major source, namely agriculture, where every states agriculture should be reduced to either the limit of technology but at least each states agriculture should be reduced to get same delivered load, not a percent.

Response

The NPDES program has, since its inception focused on wastewater treatment plants as a source of contaminants to our surface waters because of the large numbers of such plants serving our communities. In recent years improvements have been made to wastewater treatment technologies, especially in the area of nutrient reduction. Because municipal systems are a major contributor of nutrients to surface water it is not unreasonable to expect municipalities to upgrade their plants to employ the newly available technology. In the case of agriculture, EPA and the states have developed new nutrient management regulations and programs from agricultural operations and they are now part of the NPDES permitting program.

Comment ID 0213.1.001.001

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

The concept of an industrial/domestic POTW was fully supported and endorsed by USEPA in the 1970's as an effective means of providing centralized treatment to the Hopewell region, and as such the City was the recipient of EPA and State construction grants in the amount of \$40 million. The proposed TMDL allocation for HRWTF would negate this long term successful investment by forcing our industrial base to either close down or install immensely expensive onsite treatment that would place them in a very disadvantaged position in a competitive business climate.

Response

Please refer to comment 0501.1.001.005

Comment ID 0223.1.001.002

Author Name: Hazenstab Robert

Organization: Duncansville Municipal Authority

1. The EPA admits that the current limit of technology is 3.0 mg/l for TN and 0.1 mg/l for TP. Since that is the case, why is Duncansville being asked to do what current technology cannot achieve?
2. Why isn't Duncansville's cap load limits based on current technology limits?
3. Why is Duncansville being asked to achieve these lower limits when we just completed a very expensive plant upgrade to achieve annual cap loads for the Chesapeake Bay's protection?

Response

Please see Section 8 of the final TMDL for an analysis of the Watershed Implementation Plans.

Comment ID 0230.1.001.013

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA's "Backstops" Jeopardize Virginia's Highly-Effective Point Source Regulations, Related \$2 Billion Investment, and Nationally-Recognized Nutrient Exchange Program

Virginia's approach to POTW wasteload allocations and nutrient reductions is stringent, but also reasonable and appropriate, in its current form. Importantly, this approach is actually working. HRSD supports the embodiment of the Virginia approach to POTW wasteload allocations from Virginia law and regulations into the Draft WIP, and urges EPA to accept this element of Virginia's WIP.

The POTW wasteload allocations under the Draft WIP are derived primarily from Virginia's Water Quality Management Planning ("WQMP") Regulation (9VAC25-720) and Chesapeake Bay Watershed General Permit Regulation (9VAC25-820). These allocations are recognized in the Virginia Nutrient Credit Exchange Program statute enacted in 2005 and codified at Virginia Code § 62.1-44.19:12 et seq. This approach has been touted on numerous occasions as a strong national model for addressing the nation's nutrient challenges.

Virginia's regulatory approach has a lengthy and relevant history of establishing nutrient wasteload allocations that must be taken into account when establishing those same types of wasteloads in the TMDL. Virginia attained a major milestone when its State Water Control Board's ("SWCB" or "Board") adoption of stringent point source regulations referenced above in 2005 and 2007. Those regulations established a comprehensive program for the regulation of POTWs.

Extensive State and stakeholder efforts went into Virginia's development of wasteload allocations. The allocations were

even supported by aggressive advocacy groups in Virginia, including the Chesapeake Bay Foundation and the James River Association in 2005. Based on the SWCB's final adoption of the point source wasteload allocations, localities and authorities across Virginia have made major infrastructure design and financial decisions, and have constructed or are in the process of constructing major capital upgrades to implement the wasteload allocations.

To help support this construction program, the General Assembly has appropriated over \$600 million in cost-share funding for treatment upgrades with the larger balance of the funding being raised directly by VAMWA member localities and authorities. In sum, an estimated total specific set of capital projects to implement Virginia's recently established wasteload allocations.

In addition, pursuant to the above-referenced statute and regulations, the Virginia Nutrient Credit Exchange Association, Inc. (the "Nutrient Exchange") was formed to facilitate a highly structured and highly regulated point-point trading program under the supervision of the Virginia Department of Environmental Quality ("VADEQ"). The Nutrient Exchange and its participants, working under the terms a complex, multiparty contract and the related VADEQ-approved Exchange Compliance Plan, have developed a comprehensive upgrade and compliance program that reflects the most extensive, proactive treatment upgrade program in Virginia since the secondary treatment regulations.

As a result of these many efforts by the Commonwealth, VAMWA members and others, Virginia expects to meet its regulatory point source allocations by December 31, 2010. In fact, this commendable progress is largely due to decisions made in Virginia to establish a Watershed General Permit with an early effective date of January 1, 2007 for all regulated facilities and a 4- year compliance schedule. This effectively ensured Virginia's significant point source compliance the Chesapeake 2000 deadline. VAMWA and HRSD is proud to have proposed this schedule and the general permit mechanism and respectfully urges EPA to credit VAMWA for this concept and this progress by respecting the wasteload allocations set forth in the WIP.

Significantly, as recently as January 2009, EPA officially supported Virginia's regulatory approach to point source wasteload allocations and related upgrades. In fact, EPA confirmed in writing that Virginia's wasteload allocations were properly designed to meet Bay water quality standards. Now, less than two years later, EPA inexplicably proposes to ignore Virginia's approach and jeopardize Virginia's \$2 billion capital upgrade program and the integrated point-point trading program. In this regard, the Draft TMDL is completely unreasonable.

Ironically, EPA itself has agreed in writing that the "regulatory stability" that VAMWA and HRSD seeks should be a fundamental component of the Bay TMDL. In addition, EPA's Office of Inspector General has also agreed that allocations for significant dischargers should remain unchanged. Yet, despite this tremendously proactive effort in Virginia and EPA's own prior statements, EPA's Draft TMDL reverses course.

EPA has concluded that Virginia's WIP fails to comply with EPA's July 1, 2010 and August 13, 2010 nutrient and sediment allocations and is deficient because it does not establish sufficient "reasonable assurance" of nonpoint source implementation. EPA has established what it is calling a "backstop allocation" in response. The EPA backstops would set wastewater discharge concentrations at 4 milligrams per liter ("mg/l") for total nitrogen ("TN") and 0.3 mg/l for total phosphorus ("TP").

For HRSD facilities on the York and James River basins the above concentrations are significantly lower than those used to derive Virginia's wasteload allocations. Those allocations were established by the SWCB at the level

appropriate to protect local water quality consistent with the EPA Chesapeake Bay Program's documented findings that these basins have minimal or no impact on the mainstem Bay and should be established on the basis of local water quality. The concentrations for the Upper Occoquan Service Authority ("UOSA") facility are also inconsistent with local water quality needs for the drinking water reservoir to which it discharges in the Potomac River basin. The EPA backstops unreasonably and unlawfully put Virginia's current regulatory program and the related investments that have been made at risk.

This is completely unjustifiable based upon EPA's earlier remarks, and is unwarranted based upon the minimal impact wastewater has on Bay water quality as compared to other sectors. In addition, as explained below, EPA's rejection of Virginia's Draft WIP is legally objectionable. The CWA does not give EPA the authority to review and/or approve WIPs or to direct their specific terms. EPA's decision to overwrite Virginia's Draft TMDL is unlawful.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. The backstop allocations were designed to have a specific control level on all facilities without consideration of site specific information. Backstops do not address specific facilities, rather they are intended to implement a general level of control.

Comment ID 0231.1.001.001

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

The Upper Occoquan Service Authority (UOSA) appreciates the opportunity to provide comments on the Draft Chesapeake Bay Total Maximum Daily Load (TMDL) document dated September 24, 2010. UOSA is an advanced water reclamation plant located in Centreville, Virginia and it serves the western portions of Fairfax and Prince William Counties, and the Cities of Manassas and Manassas Park.

In the draft TMDL the UOSA total nitrogen waste load allocation (WLA) was reduced from 1,315,682 pounds/year (in short, 1.316 million pounds/year) to 657,841 pounds/year. This reduction appears on Page 9-36 of the draft TMDL, and it is consistent with the backstop allocations and measures EPA imposed on the Commonwealth of Virginia, as discussed in Chapter 8 of the TMDL draft document. The comments and exhibits submitted herein provide unequivocal information that shows that reducing the UOSA TN WLA in any future Bay TMDL would be detrimental to Northern Virginia's water supply and would also result in increased loads of phosphorus and nitrogen delivered to the Potomac River and the Chesapeake Bay. Such detrimental effects are contrary to the purpose and restoration goals of the Bay TMDL.

Response

EPA acknowledges the comment.

Comment ID 0231.1.001.005

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

Dr. Grizzard, OWML's Director, and Dr. Randall, an Emeritus professor at the Virginia Polytechnic Institute and State University (Virginia Tech) and Chairman of the OWMS, will submit comments to the EPA docket opposing the reduction of the UOSA TN WLA. Mr. Charles M. Murray, Fairfax Water's General Manager, in his letter dated October 20, 2010 also expressed concerns regarding the reduction of the UOSA TN WLA in the draft Bay TMDL. Fairfax Water is the purveyor who owns and uses the Occoquan Reservoir to supply drinking water to most of Northern Virginia. In his letter Mr. Murray agrees that research and monitoring shows a strong relationship between reduced nitrate levels in the Occoquan Reservoir and increases in ammonia and phosphorus in the water column, which expose Fairfax Water to increasing water quality challenges. A copy of his letter is provided as Exhibit 3.

Response

EPA acknowledges the comment.

Comment ID 0231.1.001.016

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

We urge EPA to restore the UaSA's TN WLA to 1.316 million pounds/year.

Response

EPA acknowledges the comment.

Comment ID 0254.1.001.005

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

As the U.S. Environmental Protection Agency (EPA) knows, EPA reissued the NPDES permit for DC Water's Blue Plains Advance Wastewater Treatment Plant (Blue Plains) on August 31, 2010 (Permit). The Permit contains effluent limitations and performance conditions governing, among other things, the discharge of total nitrogen (TN) in conformance with TN allocations assigned to Blue Plains and District of Columbia's combined sewer system (CSS) in the District of Columbia's 2004 Chesapeake Bay Tributary Strategy. The TN limitations and conditions in the Permit reflect agreements between DC Water and EPA following many months of negotiation. Therefore, since the Bay TMDL will serve to supersede and replace the TN allocations that are the basis for the TN limitations and conditions in the Permit, we believe it is appropriate to start our comments with an overview of the TN-related limitations and conditions in the Permit.

The Permit includes effluent limitations and performance conditions as follows:

- Outfall 002 (Complete Treatment) - Effluent limitations and performance conditions
- Outfall 001 (Anticipated CSO Related Bypass) - Performance conditions
- Combined Sewer System (CSS) - Performance conditions.

(1) Complete Treatment (Outfall 002) Design Capacity

The TN effluent limitations for Outfall 002 are based on a design capacity of 370 million gallons per day (mgd). This design capacity is derived from the annual average flow allocations assigned to Blue Plains user jurisdictions in the Intermunicipal Agreement (IMA) of 1985. The IMA is the governing document regarding the use of the Blue Plains and addresses issues such as capacity allocations, capital cost and operating and maintenance cost allocations. Signatories to the IMA are the District of Columbia; Fairfax County, VA; Montgomery County, MD; Prince George's County, MD; and the Washington Suburban Sanitary Commission (WSSC). Capacity allocations in the IMA are as follows:

[Table. Please see pg 3 of original document 0254.1]

The 370 mgd IMA allocation does not, however, comprise the total design capacity required for Outfall 002 because the Permit also requires Complete Treatment for captured CSS flow as established in the LTCP for the CSS and DC Water's Total Nitrogen Removal/Wet Weather Plan (TN/WW Plan). The average year flow allocation for captured combined sewer flow derived from the LTCP and TN/WW Plan required to receive Complete Treatment is 17 mgd. Therefore, the design capacity required for Outfall 002 is the sum of the 370 mgd IMA flow allocation plus 17 mgd captured combined sewer flow or 387 mgd.

Additionally, Blue Plains is required by the Permit to provide Complete Treatment for captured CSS flows in wet years. Based on studies of past experience for Complete Treatment, discharges from Outfall 002, in a wet year, will average 435 mgd.

In view of the foregoing, the WLAs for Outfall 002 in the Bay TMDL should be based on a design flow of 387 mgd and must be sufficient to be within the range of performance for the treatment technology now under design during a wet-year annual average flow of 435 mgd.

The design flow for Blue Plains, Outfall 002 that incorporates the IMA flow allocations, treatment of captured combined sewer flow and a wet weather year annual average flow of 435 mgd is summarized as follows:

[Table. Please see page 4 of original document 0254.1]

(1) WLA at design flow to be sufficient to be within the range of performance for the treatment technology during a wet year annual average flow of 435 mgd.

(2) The above design flow for Blue Plains, Outfall 002 is consistent with EPA requirements for Phase I WIPs covering CSO communities as reflected in EPA's October 27, 2010 email, which is attached as Exhibit No.1.

Response

Commenter is expressing a preference for a performance based approach for the CSS based on wet weather hydrology rather than design flow as discussed and finalized in the Blue Plains NPDES permit. The proposed approach is not consistent with permit assumptions and the EPA agreement with DC Water. The final TMDL and the Blue Plains WLA will be in accordance with the permit limits as agreed between the parties.

Comment ID 0254.1.001.007

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

(3) WLA Comparisons

Based on the above, we have prepared the table in Exhibit No.2 to compare the WLAs included in the Draft WIP (and, where appropriate, the draft TMDL) and the WLAs that must be included in the final TMDL to provide DC Water with the allocations needed to comply with the Permit now and in the future. The WLAs in Exhibit No.2 are based on the following:

- A design flow of 387 mgd for Outfall 002 (Complete Treatment)
- Effluent concentrations at design flow of 4.00 mg/L TN, 0.18 mg/L TP and 7.00 mg/L Total-Sed.
- Sufficient allocations for Outfall 002 at design flow to be within the range of performance for the treatment technology now under design, during a wet year annual average flow of 435 mgd.
- WLAs for Outfall 001 and CSOs remaining after completion of the LTCP to achieve Bay WQS during the critical period within the hydrologic years 1991 through 2000.

The comparisons in Exhibit No.2 show the following:

- The District distributions to Blue Plains for TN require an increase to satisfy permit requirements for a TN effluent concentration of 4.0 mg/L.
- The District distributions to Blue Plains for TN, TP and Total-Sed will require increases for Outfall 001 if WLAs are needed to satisfy the Bay Model Critical Period. Increases to distributions for CSOs remaining after completion of the LTCP will also be required if WLAs are needed to satisfy the Bay Model Critical Period.
- The District distribution to Blue Plains for Total-Sed may be reduced if the permit requirement of 7.00 mg/L is used to calculate the distribution.
- The Maryland TN allocation to Blue Plains requires an increase for the Maryland design flow of 169.7 mgd or the flow will have to be restricted to a rate equivalent to the TN allocation of 1,993,000 lbs/year at 4.00 mg/L or 163.7 mgd.
- The Virginia Total-Sed allocation to Blue Plains requires an increase for the Virginia design flow of 47.8 mgd or the flow will have to be restricted to a rate equivalent to the Total-Sed allocation of 726,823 lbs/year at 7.00 mg/L or 34.1 mgd.

Response

The limits and conditions in the Blue Plains permit are and have been predicated on the established design flow of 370 mgd. This was the flow rate that was considered for the 2010 permit and earlier issuances. The concept of a design flow for a specific outfall (002) was not considered during discussions for the issued permit; and EPA believes that it is inappropriate to modify what was used as a basis of agreement for the permit issuance in subsequent discussions relating to the issuance of the WIP and Bay TMDL. Furthermore, the allocations provided to Blue Plains is based on the state WIPs and is the loading necessary to achieve applicable WQS.

Comment ID 0254.1.001.011

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

EXHIBIT 1

Colleagues - Thank you for this morning's call on calculating combined sewer system WWTP loads in Virginia's Phase I WIP, the Watershed Model, and the Chesapeake Bay TMDL. As we discussed, EPA expects in the Phase I WIPs that all WWTPs submit allocations based on design flow rather than dry weather flow, average wet weather flow treated through the facility, or peak flow. Using the Richmond plant as an example, this would equate to a flow of 75 mgd. EPA will calculate the Chesapeake Bay TMDL WLA based on the flow multiplied by the concentration. This approach ensures consistency among all WWTPs and CSO communities in the watershed.

If VA is interested in pursuing alternative approaches for the Phase II WIPs such as average wet weather flow, the jurisdiction should work through the Chesapeake Bay Program Wastewater Workgroup, coordinated by Ning Zhou. Ning agreed to place this issue on the next Workgroup agenda if VA is interested in proposing alternative approaches.

Response

Please refer to response to comment 0254.1.001.005

Comment ID 0255.1.001.005

Author Name: Gumm Gary

Organization: Washington Suburban Sanitary Commission (WSSC)

WSSC staff also participated in a detailed conference call on 10/14/10 chaired by Reginald Parrish of EPA to discuss the load allocations specifically associated with Blue Plains and the Seneca WWTP. The purpose of that call was to convey the position of the Blue Plains Regional Committee on the correct nutrient load allocations that need to be incorporated in the Final Bay TMDL. Separate agreements on the allocation of capacity among the users of Blue Plains are beyond the purview of EPA and governed by the Intermunicipal Agreement (IMA).

WSSC commends EPA for acceptance of the Maryland wastewater load allocation strategy for significant Municipal WWTPs Strategy which is based on implementation of Enhanced Nutrient Removal standards that treat wastewater to 4 mg/L TN and 0.3 mg/L TP stated in section 8.3.2 pp. 8-12 and 8-13 of the Draft Bay TMDL and that no further EPA backstop is necessary with respect to significant WWTPs.

The specific corrections necessary in the Table contained in Section 9 are as follows:

Page 32

Marlboro Meadows: WSSC is in the process of constructing a pumping station and pipeline that will, upon completion, transfer the flow from the community of Marlboro Meadows to the WSSC Western Branch WWTP. MOE has agreed to transfer the TN, TP and sediment load assigned to Marlboro Meadows and the 0.6 MGD of capacity to the Western Branch WWTP.

There needs to be a footnote to the Table 9 that specifies that the 7,309 TN, 548 TP and 54,820 total sediment allocations for Marlboro Meadows will transfer to Western Branch along with the associated 0.6 MGD of capacity upon completion of the ongoing pump-over project. The discharge from the Marlboro Meadows facility will be eliminated at that time and the current Marlboro Meadows NPDES permit will terminate at that time.

Parkway: The load allocations assigned to the Parkway WWTP are correct.

Western Branch: The load allocations for the Western Branch WWTP will be increased by the addition of the TN, TP and sediment allocations currently assigned to

Marlboro Meadows and the capacity of Western Branch will increase by 0.6 MGD. This can also be handled by a cross reference to the footnote for Marlboro Meadows: The final load allocations at Western Branch upon transfer of the flow from Marlboro Meadows will then be 372,776 TN, 27,958 TP and 2,795,824 total sediment load. The new capacity

at Western Branch will be 30.6 MGD.

Page 33

Damascus: The load allocations assigned to the Damascus WWTP are correct.

Mattawoman: The three separate load allocations assigned to the Mattawoman WWTP apparently represent local load equivalents assigned to the multiple jurisdictions that send flow to the wastewater plant. None of the three separate allocations correspond to the commitment by the Mattawoman WWTP to reserve 3 MGD of treatment capacity for the portion of the flow that originates in Prince George's County, Maryland. Appendix B, page 18, of the Maryland WIP simply assigns the entire 20 MGD allocation to the Mattawoman WWTP.

Page 34

Seneca Creek: The load allocations shown for Seneca are incorrect since they are based on a capacity of 20 MGD and the approved design capacity is 26 MGD. The Seneca NPDES permit recently issued and effective on 10/1/2010 reflects the authorized 6 MGD increase in capacity for a total Seneca capacity of 26 MGD. The associated nutrient load allocations authorized are 316,738 TN and 21,563 TP at a design capacity of 26 MGD.

Page 36

Blue Plains: The two separate load allocations shown for the Maryland portion of the flow are artificial jurisdictional load designations that have no practical meaning as the Maryland portion of the flow to Blue Plains is assigned to WSSC and not proportioned among Montgomery and Prince George's Counties. The total load allocation is also in error. The correct nitrogen load for allocation for the Maryland portion of the flow at Blue Plains is 1,993,000 TN. The TN load allocation shown in the Blue Plains permit and in the Blue Plains Regional Committee letter of April 7, 2010 (attached) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0255.1] clearly confirms that the agreed to TN annual load allocation for Blue Plains is 1,993,000 lbs. In addition, WSSC supports the proposed footnote to the Draft Bay TMDL and the Maryland WIP regarding assignment or transfer of future nutrient load allocations at Blue Plains noted at the bottom of page 6 of the letter from the Blue Plains Regional Committee.

The WSSC Potomac Water Treatment Plant (WTP) also has an NPDES permit that may need to be added to the list of NPDES point source dischargers in Table 9 of the Bay TMDL and to Appendix B of the Maryland WIP. Although the Potomac WTP does not have nutrient limits, the NPDES permit does impose limits on the discharge of suspended solids under certain conditions and the Draft Bay TMDL is assigning annual sediment loads to NPDES dischargers. There may not be a need to assign a sediment load allocation for the purposes of running the Bay model since there is a net removal of sediment from the Potomac watershed by the Potomac WTP process. In a typical year the operation of the Potomac WTP results in a net reduction of approximately 2,350 dry tons of sediment per year, or 4,700,000 dry pounds of solids per year at the current raw water production rate of 123 MGD. The net reduction in sediment load to the Potomac should be recognized for the purposes of modeling the sediment load in the Potomac watershed.

Response

The MD WIP narrative document does not specify a transfer of flow from Marlboro Meadows to the Western Branch. However, the Final Phase I MDE input deck submitted to EPA does account for this transfer. The TMDL was developed based on the input deck and the corresponding load transfer. EPA is developing guidance to address future transfers within and between basins which will provide further clarification on the issues to be considered.

With regard to the Mattawoman, consistent with the MDE input deck and EPA policy, the final TMDL will assign the loads associated with the total flow of 20 mgd. The loads in the WLA will represent the total load for Mattawoman and will not be partitioned by county. If MDE and WSSC need loads further partitioned, the agencies should coordinate their needs with EPA CBPO modellers.

With regard to Seneca Creek, the Final Phase I MD input deck does reflect the appropriate approved design flow of 26 mgd. This reflects the 6 mgd transfer from Blue Plains to Seneca. The final TMDL was based on that Final input deck.

With regard to Blue Plains, the final MD input deck reflects the appropriate TN load of 1,993,000 lbs. and the TMDL WLA reflects that information.

With regard to the WSSC Potomac Water Treatment Plant, the CBP model simulates withdrawals associated with water treatment plants. Therefore, any credit associated with a water withdrawal has already been taken into account. The final TMDL would not provide any additional credits.

Comment ID 0260.1.001.005

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

PMAA endorses the currently recognized PA DEP limits of 6 mg/l N and 0.8 mg/l P for POTWs

As noted above, the compliance plan created by the Point Source Workgroup, and accepted by DEP and EPA, should remain in its present form. It represents the most equitable and efficient solution that allows the largest 184 plants, and hundreds of smaller dischargers, to come into phased compliance while removing nutrients based on their design flow. This plan will exceed the reductions initially attributed to point sources.

Response

EPA acknowledges the comment.

Comment ID 0272.2.001.002

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

MAMWA previously submitted comments (on December 18, 2009) in response to EPA's September 19, 2009 Notice and Initial Request for Public Input regarding the development of a Chesapeake Bay TMDL. [FN2] In addition to laying out a number of Guiding Principles MAMWA felt strongly must be considered by EPA as it developed the TMDL,

MAMWA also commented extensively on the need for regulatory stability for POTWs (i.e., retaining the existing approach to POTW nutrient upgrades) and made a number of recommendations regarding the development of the TMDL.

Generally speaking, EPA's Draft TMDL and Maryland's Draft WIP appropriately are consistent with and meet MAMWA's request for regulatory stability relative to the Tributary Strategies. [FN3] MAMWA supports this aspect of both the Draft TMDL and Draft WIP. However, MAMWA has noted a few issues in both documents that warrant further comment and revisions prior to the issuance of a final TMDL and WIP.

[FN2] MAMWA's December 18, 2009 Comments are incorporated by reference to these comments. Additionally, MAMWA incorporates by reference all EPA files or documents, no matter the form, and all materials from EPA Chesapeake Bay committees or subcommittees pertaining to Bay clean-up efforts.

[FN3] Draft TMDL ES-8; 8-13; Draft WIP at ES-14; 5-19.

Response

EPA has welcomed the involvement of individuals, groups, organizations and others in the development of the Chesapeake Bay TMDL. Through the public comment process, public meetings, webinars and other extensive outreach opportunities, EPA has sought feedback and perspective on the TMDL from all Bay stakeholders. There will be additional opportunities for public input as the process continues in 2011 and beyond. See Section 11 of the Bay TMDL for a more detailed description of the Public Participation. More information on the Virginia Bay TMDL efforts, including its Stakeholder Advisory Group, can be found at <http://www.deq.state.va.us/tmdl/chesapeakebay.html>.

Comment ID 0272.2.001.003

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

The State has determined that it will continue Enhanced Nutrient Removal ("ENR") upgrades at 67 of the State's largest POTWs. [FN4] According to the Draft WIP, "[a]t the current rate of implementation, 24 plants will be operational by June 30, 2011, accounting for an estimated 780,000 lbs/year reduction in nitrogen. To date, 14 plants have been completed; 17 plants are in construction; 22 plants are in design, and 14 plants are in planning." [FN5]

Maryland's Chesapeake Bay Tributary Strategy Statewide Implementation Plan (Jan. 24, 2008) ("Tributary Strategy Implementation Plan") addresses major WWTPs as follows:

Significant wastewater treatment plants are those with design* capacity of 500,000 gallons per day or greater. Annual nutrient load caps are based on an annual average concentration of 4.0 mg/l total nitrogen and 0.3 mg/l total phosphorus and the approved design capacity of the plant. The combined flow of these facilities comprises more than 95% of the total sewage flow generated in Maryland. [FN6]

This approach is incorporated into the Draft TMDL and Draft WIP, and MAMWA supports this aspect of both drafts. As MAMWA explained in its December 2009 Comments, there are compelling reasons to continue and adopt this particular approach in Maryland and not consider attempting to reduce POTW wasteload allocations further.

First, the POTW wasteload allocations are set at or very near limit-of-technology levels. For example, most plants will have reduced from approximately 20 to 30 mg/L total nitrogen to less than 4 mg/L, and from approximately 6 to 10 mg/L total phosphorus to less than 0.3 mg/L. [FN7] This also represents a dramatic reduction from 1985 levels - more than any other sector contributing nutrients to the Bay - and this will continue as ENR projects continue to be constructed in accordance with the Point Source Strategy.

Second, an estimated total investment of \$1.5 billion has very recently been made, or is in the process of being made, to design and construct specific ENR capital projects to implement the proposed POTW WLAs. This is above and beyond earlier upgrades to BNR levels. Any deviation at this late date would be terribly disruptive and wasteful of current efforts and investment.

Third, because the proposed POTW WLAs are so stringent, there is limited capacity available to concentrate smart growth in existing urban areas. What limited amount that does exist must be preserved to enable smart growth [FN8] and economic development in the State. [FN9]

Fourth, under the proposed POTW WLAs, POTWs have very little ability to design and construct a facility capable of producing a regulatory compliance "cushion" to help ensure compliance despite operational variability.

Fifth, also on the subject of compliance, several upgraded POTWs in the State are already struggling to comply with ENR treatment levels. None have experience operating in compliance with such limits at a fully loaded facility. Time is required to determine how successful these newly upgraded facilities will be in meeting ENR treatment levels under various conditions.

Sixth, any marginal reductions in POTW WLAs would not be cost-effective (due to markedly higher costs and the obviously diminishing benefits compared to the current program to reach ENR levels). Further, those scant reduction benefits would certainly be accompanied by adverse environmental impacts due to increased chemical production, transportation and use; increased energy production and use; and increased greenhouse gas emissions.

Lastly, although the State has been working to establish a nutrient trading program, offsets are not widely available. Nonpoint source offset trading is in its infancy Bay-wide. Even if it were viable - and MAMWA sees no clear evidence that offsetting is a viable strategy for acquiring additional nutrient allocations - it would certainly be extremely expensive. In the absence of a reliable trading program with reasonable costs, it is imperative that EPA and the State maintain sufficient POTW WLAs to serve future growth.

[FN4] Draft WIP at ES-14; 5-19.

[FN5] Draft WIP at 5-19.

[FN6] Tributary Strategy Implementation Plan at 7. Design capacity is defined to mean: "(1) A discharge permit was

issued based on the plant capacity, or the Maryland Department of the Environment (MDE) issued a letter to the jurisdiction with design effluent limits based on the new capacity as of April 30, 2003; (2) Planned capacity was either consistent with the MDE-approved County Water and Sewer Plan as of April 30, 2003, or shown in the locally-adopted Water and Sewer Plan Update or Amendment to the County Water and Sewer Plan, which were under review by MDE as of April 30, 2003 and subsequently approved by MDE."

[FN7] Additionally, according to EPA's model runs, wastewater represented a relatively small percentage of the average annual nitrogen and phosphorus load to the Chesapeake Bay. Under the critical 3-year condition for the TMDL (1993-1995), wastewater would represent an even lower proportion of the nutrient load with existing controls.

[FN8] POTWs play a critical role in enabling economic development and smart growth. POTWs are far superior in nitrogen removal to even the most efficient on-site disposal system option. Nutrient removing on-site systems are estimated to deliver approximately 20 mg/L in total nitrogen as compared to 3 mg/L for POTWs at ENR levels. The math is compelling. Allowing for development on POTW systems in already developed areas is far preferable for the health of the Bay to developing in greenfields, using septic systems.

[FN9] Adequate POTW allocations based upon adequate levels of sewer capacity is a critical part of future economic growth.

Response

Please see the response to 0038.1.001.024 for additional information relating to funding in the Chesapeake Bay watershed.

Comment ID 0272.2.001.008

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

MAMWA incorporates by reference as if fully set forth below the comments in Section II A and B above, which pertain to POTW WLAs. In addition, MAMWA offers the following comments on the Draft TMDL.

Response

Comments incorporated by reference will be addressed in a different part of this document.

Comment ID 0304.1.001.008

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

As the EPA admits, a very serious miscalculation was made several years ago by projecting that a substantial reduction of nutrients (nitrogen and phosphorous) into the tributaries which feed the bay could be met by imposing strict point source limitations, i.e. municipal sewage plants.

Unfortunately, this turned out not to be true. Instead, the evidence is overwhelming that by far the greatest source of these "nutrients" is from non-point sources, particularly agriculture, but including individual lawn fertilizing, etc. Nonetheless, the EPA is pushing ahead to require that all sewage treatment plants must meet strict new nutrient removal standards by 2013.

Response

EPA does not agree that it has admitted to a serious miscalculation relating to the ability of the point sources to limit nitrogen and phosphorous to the Bay. On the contrary, the NPDES program, especially as it relates to reducing nutrients, has been very successful, however, it has not been enough. For example, new wastewater treatment plants have come on line, or older plants have been expanded due to increasing populations. Newer and improved technologies have been developed with the ability to improve nitrogen removal. However, loads from WWTPs are only part of the problem; additional loads from other sources such as agricultural operations, stormwater runoff and air deposition also need to be addressed and EPA and the states have responded by developing new agriculture, stormwater and pesticide programs. The Bay TMDL is intended to be used in the NPDES permitting context to assure the implementation of new technologies and to bring clarity to existing programs so that permittees understand the limits that they need to achieve.

Comment ID 0304.1.001.014

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

As the EPA admits, a very serious miscalculation was made several years ago by projecting that a substantial reduction of nutrients (nitrogen and phosphorous) into the tributaries which feed the bay could be met by imposing strict limitations on point sources, i.e. municipal sewage treatment plants.

Unfortunately this turned out not to be true. Instead, the evidence is overwhelming that by far the greatest source of these "nutrients" is from nonpoint sources, particularly agriculture, but including individual lawn fertilization etc. Notwithstanding this evidence, the EPA is pushing ahead to require that all sewage treatment plants must meet even more stringent nutrient removal standards by 2010.

Response

Please see response to comment 0304.1.001.014 as this is the identical comment.

Comment ID 0304.1.001.018

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

As the EPA admits, a very serious miscalculation was made several years ago by projecting that a substantial reduction of nitrogen and phosphorous into the tributaries which feed the bay could be met by imposing strict limitations on point sources, i. e. municipal sewage treatment plants.

However, the evidence is overwhelming that by far the greatest source of these nutrients is from non-point sources, particularly agriculture, but also including individual lawn fertilizing etc. Notwithstanding this evidence, the EPA is forging ahead to require that all sewage treatment plants must meet even more stringent nutrient removal standards soon.

Response

Please see response to comment 0304.1.001.014 as this is the identical comment.

Comment ID 0316.001.002

Author Name: Bulova Sharon

Organization: County of Fairfax, Virginia

The purpose of this letter is to provide joint comments on the Commonwealth of Virginia's Draft Chesapeake Bay TMDL Phase I Watershed Implementation Plan (WIP) and the EPA's Draft Chesapeake Bay Total Maximum Daily Load (TMDL) on behalf of the Fairfax County Board of Supervisors. Located in Northern Virginia just outside of Washington D.C., Fairfax County is the most populous local jurisdiction in the Chesapeake Bay watershed. The county has a long history of progressive environmental management, and we appreciate the opportunity to provide comments on both the Draft Phase I WIP and Draft TMDL which together will drive increased efforts to restore the Chesapeake Bay through 2025 and beyond.

Both draft documents outline sector-specific implementation measures for the different source categories that impact the bay. The ultimate responsibility for controlling several of these source sectors, most notably wastewater and urban stormwater, falls to local governments, and the cost to comply with the controls proposed will be borne by the same local tax and rate payers.

Significant progress has already been made in controlling wastewater discharges in Northern Virginia . Of the five wastewater treatment plants (WWTPs) that treat sewage from Fairfax County homes and businesses, four are in the process of upgrading to the limits of technology at an estimated cost to Fairfax County rate payers of about \$350 million. The only exception is the Upper Occoquan Service Authority (UOSA), which currently is permitted to discharge at 8 mg/L total nitrogen . This exception was made in order to protect water quality in the Occoquan Reservoir, which is

a major source of drinking water in Northern Virginia. Extensive monitoring and analysis have proven that discharging this higher level of nitrogen is necessary to maintain water quality. We urge the Commonwealth and EPA to modify the Draft WIP and TMDL to ensure that UOSA is allowed to continue to discharge nitrogen at the level necessary to protect the Occoquan Reservoir.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL for a discussion of the final WIPs and EPA allocations. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0334.1.001.001

Author Name: Troutman John

Organization: Buchart Horn, Inc.

Reviewing Table 9-4, for Pennsylvania only, lists Berwick Municipal Authority, Danville Municipal Authority, Mt. Carmel Municipal Sewage Authority, Dillsburg Borough Authority, Hanover Borough, Lower Allen Township Authority, Shippensburg Borough Authority, Moshannon Valley Joint Sanitary Authority, Little Washington WW Co, KBM Regional Authority, and Gregg Township twice. Why are these facilities listed twice and how does that impact the total loadings requested?

Response

The duplicate facilities are a result of these POTWs having service areas in more than one county. The loads were divided evenly among the counties for each facility. It does not impact the total loadings. For example, Danville Municipal Authority has a service area that is partially in Montour County and partially in Northumberland County; therefore, the loads for the authority were split between the two counties. Because it was not known how much of each facility is located in each service area, 50% was assumed for each county.

Design Flow = 3.62 MGD

Annual TN Load based on 6 mg/l = 66,150 lbs/yr

50% of TN Load = 33,075 lbs/yr

Comment ID 0389.1.001.022

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

It is Harder for NY to Reduce Nitrogen at its Wastewater Treatment Plants

New York's climate affects the ability of its WWTPs located in the Southern Tier to meet the limit of technology effluent limits imposed by EPA backstops as set forth in the Draft TMDL Section 8-17. New York's climate is significantly colder than the climate in other parts of the Chesapeake Bay watershed because of its northern proximity and general higher elevation. This also contributes to colder temperatures in the winter and an overall shorter growing season. Winter temperatures of the wastewater, in NY's portion of the Bay watershed, averages to a seasonal low of nine degrees centigrade (48 Deg. F.). These low winter temperatures cause several problems at the WWTPs and directly affects the plants' ability to remove nutrients. The key relationships of temperature to nitrification rates are through Specific Growth Rate and the Half Velocity Constant. Denitrification rates are related to temperature via the Percent of Denitrification Growth Rate at 20 Degrees Centigrade. (Metcalf & Eddy, Wastewater Engineering 2d edition, 1979). Based upon this relationship, the Specific Growth Rate is essentially halved for each five degrees below 68 degrees F and is basically at or near zero at 50 degrees F or lower.

Basically articulated, this means that the lower the temperature, the slower the nitrogen removal process will function. A study showed that at the Upper Occoquan, Virginia wastewater treatment plant, temperatures of at or below 10 degrees C, the nitrite increased to nearly 10 mg/l/nitrite decreased to 3 mg/l, and Ammonium peaked at 10 mg/l. As can be seen from this data, nitrification failed due to the cold temperatures. Nitrogen removal is severely inhibited during periods of very low temperatures, and removal could even be inhibited during warmer weather, as it takes time for the proper culture of microorganisms to grow back after die off during the winter. WWTPs located in NY's Chesapeake Bay watershed may only be able to achieve the lowest effluent limits for nitrogen six months out of the year.

Another issue that affects the ability of the NY's WWTPs to meet effluent limits for nitrogen as low as three milligrams per liter (also known as the limit of technology or "LOT") is refractory nitrogen. Refractory nitrogen is the nitrogen remaining after treatment that is unable to be treated by the microorganisms in biological treatment systems. There can be up to one to three milligrams per liter of refractory nitrogen in wastewater effluent after advanced Biological Nutrient Removal treatment. Therefore, when effluent limits are at LOT, expressed as three milligrams per liter total nitrogen (see Draft TMDL at 8-17), the amount of refractory nitrogen can be equal to the effluent limit. Compliance under this situation would be virtually impossible. Also, as the lower limit is approached, more effort is required to remove more nitrogen.

2. The Cost of Achieving LOT for Nitrogen in NY is Astronomical

Based on the 20 year cost estimates for nitrogen removal to LOT by Stearns & Wheler for the CBP in 2005, it was estimated that the largest plants in NY's portion of the CBW would cost approximately \$290 million in 2010 dollars. The S & W report did take into account local factors, such as temperature and labor rate, therefore, did predict higher costs than the earlier cost studies performed by the CBP. However, even the S & W reports are felt to underestimate what the actual costs would be.

Response

EPA agrees with commenter that extreme low temperatures can have an adverse impact on nitrogen removal organisms. Areas such as New York which experience cold winters will need to provide operational flexibility to achieve effective operation. System design should incorporate adequate flexibility to allow plant operators to respond to adverse operating conditions. For example, many plants operate with a longer sludge age at low temperatures.

A portion of a plant's influent dissolved organic nitrogen can be resistant to biological treatment. Actual values will depend on plant influent and process characteristics. It would be inaccurate to assume that refractory nitrogen will prevent all plants from meeting low nitrogen discharge limits.

Actual costs for BNR upgrades will depend on a number of factors including such things as: influent characteristics, effluent target concentrations and the type of treatment processes already in play.

Comment ID 0467.1.001.003

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Authority also believes the draft TMDL should have maintained the Pennsylvania Department of Environmental Protection ("Department") limits of 6 mg/l nitrogen and 0.8 mg/l phosphorus based on plant design flow for POTWs in Pennsylvania.

Response

EPA's allocation applicable to WWTPs and industrial sources has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter.

Comment ID 0467.1.001.010

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

2. POTWs typically deliver complex treatment plant upgrades that take about 5 to 6 years from start of planning to initiation of operation.

3. Pennsylvania developed its Chesapeake Bay Tributary Strategy ("CBTS") in 2004 through 2006, and many POTWs have already received annual cap loads and compliance schedules in their NPDES permits and have started construction. EPA's backstop cap loads are based on effluent concentrations that are 50 percent of the Department's CBTS limits for total nitrogen and 12.5 percent for total phosphorus:

a. What should a POTW in a planning phase plan for at the current time? Should it plan for the CBTS limits or the

backstop limits or both?

b. What should a POTW under construction plan for at the current time? Should it now plan for additional treatment?

Response

EPA's allocation applicable to WWTPs and industrial sources has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter. EPA agrees that treatment plant upgrades are complex and require many years from planning to initiation. Facilities covered by NPDES permits need to meet the requirements of their permits. At the time that permits are modified or reissued, new conditions may be included to meet additional requirements. If POTWs are building to the limit of technology, it is not likely that the permitting authority will require more stringent requirements at the present time, however, once construction is complete, if the POTW's effluent does not meet water quality standards, additional requirements may be necessary. If the POTW is planning construction and the POTW has reason to believe that the new construction is not likely to meet water quality standards, the POTW should begin to plan for additional improvements to meet water quality standards.

Comment ID 0467.1.001.022

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

IX. Sediment Limits Should Not Apply to POTW's

A. The draft TMDL assigns sediment limits to POTW's.

1. How are sediment loads contributed by point sources measured and reported? Is this the TSS discharge, the volatile TSS, as measured in the POTW effluent plus stormwater runoff?

2. Are a POTW's SSO and CSO contributions included in the calculation?

X. District of Columbia Blue Plains POTW Treated Differently from Pennsylvania's POTW's

A. The Blue Plains POTW NPDES permit was effective September 30, 2010.

1. Why is the Blue Plains POTW allowed to discharge from just one of its outfalls concentrations of total nitrogen and total phosphorus greater than EPA's assumed limit of technology? The NPDES permit provides for limits of 3.88 mg/l total nitrogen and 0.18 mg/l total phosphorus.

2. Why do the limits contained in the Blue Plains POTW NPDES permit allow cap loads of 4,377,580 pounds per year total nitrogen which is equal to the load granted to all 183 significant POTW's in Pennsylvania (before the

consideration of the average Pennsylvania delivery ratio of 0.75. and Blue Plains delivery ratio of 1.0)?

3. Why is there no cap load for total phosphorus in the Blue Plains permit?

4. Why is the concentration limit for total phosphorus 0.18 mg/l instead of the EPA assumed limit of technology of 0.1 mg/l?

5. Why are the proposed backstop limits for Pennsylvania POTW's lower than the limits imposed on Blue Plains in light of Blue Plains much higher delivery ratios and the Pennsylvania POTW's in the Potomac basin being upstream of the Blue Plains discharge?

6. Why is the "calculated cap load" (based on design flow times monthly maximum concentration) for total phosphorus 202,737 pounds per year when the total nitrogen cap for all Pennsylvania point sources is 200,000 pounds per year?

7. Same question, but asked in light of the difference in delivery ratios for Blue Plains and all of Pennsylvania.

8. Are the Blue Plains planned total nitrogen reductions beginning in January 1, 2015 considered in the current model and in the resultant allocation of loadings to states and segments within state?

Response

IX. Sediment Limits should not apply to POTWs

A.1. Wastewater sediment loads are calculated from TSS and BOD loads. Stormwater sediment loads are modeled.

A.2. CSOs are included; SSOs are not because such discharges are illegal under the CWA and therefore have a zero WLA for SSAs.

Comments related to X. District of Columbia Blue Plains POTW treated differently from PA POTWs. WASA, the permittee for the Blue Plains permit is engaged in the design phase of comprehensive plant and LTCP improvements to meet its prescribed Bay allocations. The TN limit in the permit is a limit of technology requirement. The TP limit is carried over from a previous permit and will be reviewed and modified as necessary during the next permit modification or reissuance cycle, whichever comes first. The cap load for the Blue Plains permit for TN is limit of technology based on a flow of 370 mgd. This is the largest advanced treatment facility in existence.

The TP limit is based upon a variety of factors, including flow and is a tradeoff to achieve additional TN reduction as phosphorus is added to the process to enhance denitrification. As noted earlier, this limit was carried over from an earlier permit and will be reviewed in light of the new TMDL load at the time the permit is modified or reissued, whichever is earlier.

As noted elsewhere in this response to comments, the backstop scenarios were designed to achieve a specific level of control over all facilities, in the absence of having considered site specific information. Backstops do not address specific facilities, nor do they take into account process improvements already planned or in place for specific facilities. Accordingly, backstops may not appear reasonable for some facilities.

Yes, the planned Blue Plains TN reductions considered in the current model and loadings.

Comment ID 0507.1.001.009

Author Name: Sullivan Sean

Organization: Liberty University and Thomas Road Baptist Church

Communities in the James River watershed have spent years working with EPA to improve their wastewater and stormwater infrastructure. Cities like Lynchburg have made significant capital improvements to their systems as a result of this effort, and the Draft TMDL fails to acknowledge or consider those efforts in setting load allocations for wastewater or stormwater facilities on the James River. Rather, the Draft TMDL simply imposes a one-size-fits- all mandatory reduction for nitrogen, phosphorus and sediment on all wastewater treatment plants. In so doing, EPA has failed to consider all relevant factors with respect to those wasteload allocations. To the extent EPA believes it may not consider anything other than achieving compliance with the water quality standards in determining wasteload allocations, such an interpretation of Section 303(d) is inconsistent with the Clean Water Act, as previously discussed. [FN52]

[FN52] See *Sea-Land Servo v. DOT*, 137 F.3d 640, 646 (D.C. Cir. 1998) ("An agency action, however permissible as an exercise of discretion, cannot be sustained when it is not based on the agency's own judgment but on an erroneous view of the law.").

Response

Commenter provides information suggesting that improvements made to WWTPs in VA were not considered in the allocations to the James River watershed. EPA disagrees. While EPA recognizes that improvements have been made in many of the Bay watersheds in the past, however, additional nutrient reductions are necessary to achieve applicable water quality standards. EPA is establishing this TMDL in accordance with Section 303(d) of the CWA with the proper exercise of discretion. See also Section 1.4 of the TMDL for further discussion of legal authority.

Comment ID 0519.1.001.010

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Upper Occoquan Service Authority Concerns

The Upper Occoquan Service Authority (UOSA) facility is an advanced water reclamation plant located in Centreville, Virginia serving the western portions of Fairfax and Prince William Counties, and the Cities of Manassas and Manassas Park. Discharge from the facility flows through the Bull Run tributary and serves as a major raw water source augmentation to the Occoquan Reservoir, a drinking water reservoir which currently serves approximately one million

northern Virginia residents. UOSA has operated its water reclamation facility for over 30 years meeting very stringent permit limitations imposed by the Virginia Department of Environmental Quality. Since 1978 the UOSA plant has consistently complied with a total phosphorus permit limit of 0.1 mg/L, which is considered the limit of technology for phosphorus removal.

In the draft TMDL the UOSA total nitrogen (TN) waste load allocation was reduced from 1,315,682 pounds/year to 657,841 pounds/year. This reduction appears on Page 9-36 of the draft TMDL, and is consistent with the moderate "backstop" allocations and measures EPA imposed on the Commonwealth of Virginia, as discussed in Chapter 8 of the TMDL draft document. The Northern Virginia Regional Commission staff is very much concerned that reducing the existing UOSA TN WLA in any future Bay TMDL would be detrimental to Northern Virginia's water supply and would also result in increased loads of phosphorus and nitrogen delivered to the Potomac River and the Chesapeake Bay. Such detrimental effects are contrary to the purpose and restoration goals of the Bay TMDL.

Research performed by the Occoquan Watershed Monitoring Laboratory (OWML), an independent research entity operated by the Virginia Tech Department of Civil Engineering, has demonstrated that due to some unique characteristics of the Occoquan Reservoir, the nitrate contained in the UOSA discharge provides an oxidizing environment in the lower layers of the reservoir during times of thermal stratification. As long as nitrate persists in the bottom layer of the reservoir, the redox reactions prevent the release of sediment bound phosphorus, reduce the release of ammonia from reservoir sediments and maintain the green algae and diatoms species dominance and preventing the proliferation of less desirable blue-green algae.

If UOSA's allocation were reduced to 657,841 pounds/year, UOSA would be placed in a position of having to conduct a year-round maximum denitrification effort which would result in Reservoir nitrate deficiencies and a significant release of phosphorus, ammonia and manganese from the reservoir sediments. The backstop measure of reducing UOSA's TN WLA from 1.316 million pounds/year to 657,841 pounds per year could result in the degradation of the Occoquan Reservoir's water quality similar to the pre-UOSA 1960s conditions along with an associated increase in nutrient loads to the Potomac River and the Chesapeake Bay.

The Northern Virginia Regional Commission staff urges the Commonwealth and EPA to modify the Draft WIP and TMDL to ensure that UOSA is allowed to continue to discharge nitrogen at the level necessary to protect the Occoquan Reservoir.

Response

EPA's allocation applicable to WWTPs and industrial sources including the commenter has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter. The allocation commenter discusses is the backstop allocation. Backstop allocation scenarios were designed to have a specific control level on all facilities in the absence of consideration of actual site specific technologies. Thus, backstop allocations represent an overall level of control, rather than site specific application. Backstop allocations may not appear reasonable for facilities in the absence of information relating to specific levels of control. Backstop allocations are only intended to be used by EPA in this TMDL in the event that other reduction scenarios fail to meet required water quality standards.

Comment ID 0523.1.001.001

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

We own and operate a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We are already doing our part for the James River and Bay restoration. The City wastewater treatment facilities are being upgraded to comply with the Richmond WWTP total nitrogen (TN) and total phosphorus (TP) DWF waste load allocations of 1,094,402 and 68,525 pounds per year. The improvements are described as follows:

Contract 1 - Total Phosphorus Control (a fully functioning element on this date): Chemical storage and new feed pumps will be installed to dose ferric chloride in the primary and secondary sedimentation tanks.

Contract 1 - Methanol Feed & Storage: The existing filters will be upgraded to denitrification a filter, which includes methanol storage tanks, chemical metering pumps and controls.

Contract 1 - Filter Upgrades (a fully functioning element on this date): The existing filters will be upgraded to reliably remove particulate phosphorus and nitrogen to meet the new permit limitations of the general permit.

Contract 2 - UV Disinfection: The existing chlorination disinfection facilities will be replaced with UV disinfection to mitigate the adverse impact of any nitrites that may break through the process and cause unstable of disinfection and potential bacteria violations.

Contract 2 - Main Plant Incoming 13.2 kV Switchgear: The existing incoming switchgear and portions electrical distribution system will be replaced, based on a condition assessment. Based on present, concerns for electrical safety, the new switchgear will be installed within a building instead of an outdoor walk-in enclosure.

Contract 3 - Scum Control Upgrades: The existing primary sedimentation tanks will be upgraded with new troughs and electrically actuated gates, which will control scum build-up in the activated sludge process. Scum will be conveyed to a new scum concentrator building.

Contract 4 - Aeration Upgrades: Improvements to the aeration tanks include new internal mixed liquor recycle pumps, and baffles and upgrade of gates and diffuser system. Contract 4 - RAS Capacity Upgrades: The RAS pumping capacity will be increased to about 60 mgd, which will reduce the solids carryover to the effluent filters during WWF.

Contract 4 - Bioaugmentation Upgrades: The existing sludge holding tanks will be upgraded to accommodate the bioaugmentation process to allow the WWTP staff to restart the activated sludge system faster and shorten the period to recover the nitrification process.

Contract 5 - Final Sedimentation Tanks: Two sedimentation tanks will be added to improve the solid capture efficiency

of the final sedimentation tanks and reduce the solids loading to the effluent filters.

Contract 5 - Fermentation: One existing digester will be converted to a fermentation reactor to produce volatile fatty acids (VFA) from primary sludge. The VFAs returned to the anoxic zone are more effective electron donors, improve the efficiency of the denitrification in the aeration tanks and reduces the operating costs associated with the addition of methanol. The upgrades include odor control, transfer pumps, and electrical/instrumentation.

Response

EPA appreciates the comment and commitment of the WWTP to advanced treatment. This comment is informational and no further response is required.

Comment ID 0549-cp.001.001

Author Name: Stewart Ralph

Organization: Borough of Bellefonte, Bellefonte, Pennsylvania

The Draft TMDL does not take into consideration WWTPs that have already spent millions of dollars toward meeting the October 1st, 2010 nitrogen and phosphorus limits. It is utterly ridiculous to make the customers of these treatment plants pay again to meet new limits when WWTPs only account of approx. 11% of the problem. We have an \$30,000/month debt payment that we must pass on to our customers. Many of them will not be able to make their new sewer rate payment. We can not go back to them and ask for more. Municipalities and Authorities have done their share. Look to the polluters to effectively and wisely address the problem. It is an outrage that people at the top levels in government can possibly come up with a plan that misses the target by such a incredible margin. If it should come to pass, we will explore all options including handing over the keys.

Response

EPA's allocation applicable to WWTPs and industrial sources has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter. In general, EPA and the states hear your concern and understand that industrial dischargers want set, certain limits that are attainable at a reasonable cost. EPA and the states share that concern however, but also recognize that past programs, controls and investments have not achieved the level of water quality necessary to meet the designated uses of our rivers, creeks, estuaries and the Bay. Accordingly, it is necessary to periodically evaluate how well we are doing and determine what additional steps are necessary to achieve water quality. The TMDL identifies a plan sufficient to restore the Bay and surface water bodies. It is possible that additional controls will be necessary in the future if implementation is not sufficient or the TMDL is revised to reflect new information. The goal is achieving water quality that meets each state's designated use for their water bodies.

Comment ID 0605.2.001.001

Author Name: Payne L.

Organization: City of Lynchburg, Virginia

We have significant concerns with EPA's Draft TMDL and object to EPA's proposed "backstop" actions against the Commonwealth of Virginia and our facility. EPA proposes to cut our facility's stringent nutrient wasteload allocations ("WLAs") currently set forth in Virginia's EPA-approved Water Quality Management Planning Regulation, 9VAC25-720, and Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820 (collectively, the "Virginia Regulations").

Response

EPA's allocation applicable to WWTPs and industrial sources including the commenter has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter. The allocation commenter discusses is the backstop allocation. In general, backstop allocation scenarios were designed to have a specific control level on all facilities in the absence of consideration of actual site specific technologies. Thus, backstop allocations represent an overall level of control, rather than site specific application. Backstop allocations may not appear reasonable for facilities in the absence of information relating to specific levels of control. Backstop allocations are only intended to be used by EPA in this TMDL in the event that other reduction scenarios fail to meet required water quality standards.

Comment ID 0689.1.001.006

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

14. In evaluating the loading reductions required to restore the Chesapeake Bay, did EPA fully evaluate the impact of recent changes to the Blue Plains Wastewater Treatment Plant, which will be discharging 3.8 million pounds of nitrogen less per year under its new permit?

Response

Yes, EPA did fully evaluate the impact of recent changes to the Blue Plains WWTP. Because the NPDES program has not been delegated to the District, EPA writes and issues all NPDES permits for the District.

Comment ID 0689.1.001.023

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

34. Please describe how EPA determined the limits of technology for nitrogen and phosphorus (3 mg/l and 0.1 mg/l, respectively) to be used in conjunction with the backstop allocation approach. What information or data was used in the decision-making process setting these standards? EPA's decision to impose limits of technology is also contrary to the Clean Water Act because EPA cannot show that Pennsylvania water quality standards are inconsistent with the Clean Water Act.

Response

EPA's allocation applicable to WWTPs and industrial sources has changed significantly based in part on receipt of a Final Phase I WIP from the State, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLA applicable to commenter. In response to the specific comments, the commenter is mistakenly interchanging the usefulness and purpose of backstop and limits of technology. Limits of technology speak to the effectiveness of commercially available technologies which can be applied at facilities. Backstop allocations are designed to achieve a specific control level on all facilities without considering the site specific conditions at each facility. Accordingly, limits of technology make a lot of sense for specific facilities where such controls are required. Backstop allocations may not appear reasonable for specific facilities. The information used to set the limits for Blue Plains is set forth in detail in the Fact Sheet which is available at www.epa.gov/reg3wapd/npdes/index.htm.

When issuing permits, the NPDES permitting authority must consider two approaches to pollution control under the CWA, whichever is more stringent, technology based limits and water quality based limits. Limits for both are calculated and the more stringent of the two is incorporated into the permit. Accordingly, neither technology-based limits nor water quality based limits are inconsistent with the Clean Water Act.

Comment ID 0691.1.001.006

Author Name: Kirk Ken

Organization: National Association of Clean Water Agencies (NACWA)

Allocations for POTWs

Wasteload allocations (WLAs) for POTWs must be stable to avoid repeated, extremely expensive upgrades to wastewater treatment plants that present an unreasonable burden to ratepayers. Under the current tributary strategies for reducing nutrient loads to the Bay, POTWs have already made significant investments to upgrade treatment facilities to meet these load reduction requirements. As stated in EPA's Section 202a report, The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay, issued in response to Executive Order 13508, "Over 90 percent of nutrient reductions needed to reach the wastewater treatment facilities' basinwide loading caps are expected to be achieved by 2010." The report also acknowledges that "it would be very expensive to further reduce loadings from municipal and industrial wastewater dischargers below the established facility-specific cap loads in the tributary strategies."

EPA has not only proposed to reduce WLAs for POTWs in the initial TMDL, but also could "require additional reductions of loadings from point sources [by] revising the final December 2010 Chesapeake Bay TMDL to reallocate additional load reductions from nonpoint to point sources of nutrient and sediment pollution, such as wastewater treatment plants,"

to ensure that "jurisdictions develop and implement appropriate WIPs, attain appropriate 2-year milestones of progress, and provide timely and complete information to an effective accountability system for monitoring pollutant reductions." (p. 7-11) This continued threat of additional nutrient controls does not provide the regulatory stability that the Bay community needs. It is wasteful and inappropriate to expect frequent modification or reconstruction of major facilities, absent a major new health or ecological risk that needs to be urgently addressed. A major modification at a POTW should bring 10 or 20 years of stability prior to different or incompatible upgrade requirements being imposed.

These additional point source reductions will have very little environmental benefit while presenting tremendous financial burdens on POTWs and their communities to add additional nutrient controls to facilities that were recently upgraded. Furthermore, as nutrient control approaches the limits of technology, the consumption of energy and chemicals increases dramatically and concerns emerge regarding offsetting environmental impacts overall such as greenhouse gas emissions. Severe limits on POTWs will also encourage increased reliance on on-site disposal systems, such as septic systems, that are far less efficient than centralized treatment, and drive population growth and development away from existing urban areas with advanced centralized treatment, leading to more environmental problems.

Response

EPA's allocations applicable to WWTPs and industrial sources have changed significantly based in part on receipt of a Final Phase I WIPs from the States, and consideration of comments including this one. Please see Section 9 and Appendix Q for the final WLAs. In general, EPA and the states hear your concern and understand that industrial dischargers want set, certain limits that are attainable at a reasonable cost. EPA and the states share that concern however, but also recognize that past programs, controls and investments have not achieved the level of water quality necessary to meet the designated uses of our rivers, creeks, estuaries and the Bay. Accordingly, it is necessary to periodically evaluate how well we are doing and determine what additional steps are necessary to achieve water quality. The TMDL identifies a plan sufficient to restore the Bay and surface water bodies. It is possible that additional controls will be necessary in the future if implementation is not sufficient or the TMDL is revised to reflect new information. The goal is achieving water quality that meets each state's designated use for their water bodies.

Comment ID 0746.1.001.021

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Level of Treatment Municipal Wastewater Treatment Plants

Due to our extended cold winters, 3mg/L is not the Limit of Technology (LOT) for biological nitrogen removal (BNR) in New York. Studies indicate that nitrification and denitrification rates increase as temperatures increase (until a maximum temperature is reached). In general, nitrification rates double for every 8 to 10oC rise in temperature [FN30]. Within New York, however, the situation is reversed. During our long, cold winters both ambient air and wastewater temperatures drop significantly decreasing and, at times, stopping nitrification and denitrification. The effect of temperature on biological phosphorus removal is not completely understood.[FN31]

The Coalition's understands that NYSDEC has done a BAT evaluation for aerobic biological treatment systems in New York and concluded that 5 mg/L is BAT, and in essence, the LOT for nitrogen removal. Similarly, it has concluded that biological treatment in and of itself does not constitute BAT/LOT. Instead, it has determined that chemical oxidation (without subsequent filtration) is BAT and LOT for phosphorus removal. We defer to NYSDEC to further justify these levels.

Since making this determination, NYSDEC has modified most of the 28 Bay Significant SPDES Permits to insert Action Levels which capped both the concentration and mass loadings of Nt and Pt discharged by these WWTPs. For those New York WWTPs which have some excess capacity, the concentration Action Levels essentially place a moratorium on accepting significant new discharges which have any potentially significant levels of Nt or Pt. In addition, these modified SPDES permits require an engineering evaluation of both how much additional nutrients can be removed by:

- optimizing the operation of the current WWTPs with a goal of reaching 12 mg/L Nt and 2.0 mg/L or less of Pt; and
- reaching the defined BAT levels of 5.0 and 0.5 mg/L respectively for Nt and Pt.

While only 8 of these reports have been submitted to NYSDEC to date, we understand that these reports served as the basis of NYSDEC's estimated that it will cost an additional \$140 Million dollar upgrade these plants to reach the mix of optimized and BAT upgraded WWTPs which NYSDEC built into its draft WIP.

Because even the current SPDES permits place restrictions on the use of the current excess capacity at these plants, a situation which will be extended to most, if not all, of these 28 Bay Significant WWTPs after the TMDL goes final, especially if any of the federal Backstops are included, "offsets" will be needed by any WWTPs who wish to be able to use their full design capacities [FN32] or to expand that capacity. Therefore, trading between both permitted Point Sources and Point/Non-Point Sources must be allowed without triggering the need for a TMDL modification, because trading may be the most efficient method of achieving the needed offset.

B. Level of Treatment for Nutrient Removal For High Strength WWTPs

There are two Bay Significant WWTPs serving industrial plants within the New York portion of the Bay watershed. These are not specifically addressed in the draft New York WIP. For the reasons discussed below, both the final New York WIP and the final TMDL must recognize that BAT/LOT is significantly different for WWTPs treating high organic strength wastewater and that the determination of what constitutes BAT/LOT must be done on a case-by-case basis. Both plants are food processors and are important sources of employment for local residents. They are also vital to our local dairy farmers having a local purchaser of much of their dairy products, so they can avoid having to pay significantly higher costs which would be necessary to transport their products to competitors located outside of the Bay watershed. One of these plants, the Kraft Global plant in Cambell, New York is a member of the Southern Tier TMDL Coalition and provided these comments. The Coalition is also very concerned about the effect the draft TMDL would have on the farmers in that area within the northern part of the Bay Watershed, who provide the majority of its raw material milk from local farmers. If they are forced out of production by the TMDL, the viability of these two industrial food processing facilities may be compromised. Obtaining milk from other regions will be at increased cost due to transportation and potentially diminished supply if dairy farms are forced out of business.

1. Background

C. Level of Treatment for Nutrient Removal For High Strength WWTPs

There are two Bay Significant WWTPs serving industrial plants within the New York portion of the Bay watershed. Both plants are food processors and are important sources of employment for local residents. They are also vital to our local dairy farmers having a local purchaser of much of their dairy products, so they can avoid having to pay significantly higher costs which would be necessary to transport their products to competitors located outside of the Bay watershed. One of these plants, the Kraft Foods Global (Kraft) plant in Campbell, New York (with close to 400 employees) is a member of the Southern Tier TMDL Coalition. This plant and the Coalition are very concerned about the effect the draft TMDL would have on the farmers in the area within the northern part of the Bay Watershed, who provide the majority of the raw material milk. If farmers are forced out of production by the TMDL, the viability of these two industrial food processing facilities may be compromised. Obtaining milk from other regions will be at increased cost due to transportation and potentially diminished supply if dairy farms are forced out of business.

A. Level of Treatment for Nutrient Removal For High Strength WWTPs

There are two Bay Significant WWTPs serving industrial facilities within the New York portion of the Bay watershed. Both facilities are food processors and are important sources of employment for local residents. They are also vital to our local dairy farmers as they are nearby purchasers of much of their dairy products, so the farmers can avoid having to pay significantly higher transportation costs to transport to locations outside the area. One of these, the Kraft Foods Global, Inc. (Kraft Foods) facility in Campbell, New York, employs close to 400 nearby residents and provides a significant economic benefit to the surrounding communities. The local dairy farmers provide the majority of the raw material milk used at the Kraft Foods facility. Kraft Foods is a member of the Southern Tier TMDL Coalition. [FN33]

This facility and the Coalition are very concerned about the effects the draft TMDL would have not only on the Kraft Foods Campbell facility but also on the farmers in the area within the northern part of the Bay Watershed. If farmers are forced out of production by the TMDL, the viability of the Kraft Foods facility may be compromised because of increased transportation costs. As explained below, the facility would not be able to achieve the proposed limits using its current, advanced system. If there even is a system available to achieve the proposed results, capital costs to implement such a solution most likely would be significant. It is not unreasonable to consider that such costs could reach a prohibitive amount for the facility to continue operating at its current levels, especially if the local supply of dairy is sufficiently diminished.

1. Background

The Kraft Foods facility produces cheese and related products from milk produced at local dairy farms. From an organic loading perspective, it produces a wastewater that is higher in strength (that is, it has more nutrients) than what a typical municipal WWPT treats. In addition, the volume and the amount of nutrients are highly variable. The retention time is short, which provides a shorter window of opportunity for full processing/digestion of the nutrients.

Additional variability to the wastewater treatment process was added when the treatment plant was upgraded in 2008 to convert waste byproducts, such as whey, into energy. The effective operation of this waste-to-energy WWPT process not only reduces the need for natural gas, but also reduces the need to apply the whey on land, which is an alternate approved use of this byproduct material. The facility works hard in its efforts to meet its permit limits given the complexity of its advanced system.

The permit and discharge monitoring reports do not tell the whole story about the system. The volumes indicated in the permit do not reflect the total volume sent to the WWPT because the permit does not address the waste byproduct that is being processed at the WWPT since 2008. Therefore, any inputs and outputs from the conversion of whey and other byproducts to energy are not shown on the discharge monitoring reports.

2. Discussion of Permits

The facility has worked to reduce its nutrient discharge. The current permit does not have any permit limits, but does contain action levels based on a twelve-month rolling average and a request for an engineering report on what would be involved to achieve potential daily targets.[FN34] In the prior permit (before the 2008 upgrade), the permit did not have any total nitrogen (TN) limit; the current permit action level for Nt is 10 mg/L and the potential daily target is 12 mg/L. For total phosphorus (PT), the prior permit limit was 5 mg/L; the current permit action level is 3.5 mg/L and the potential daily target is 2 mg/L.

Currently the WWPT's twelve-month rolling averages are within the action levels range for mg/L. This gets more challenging to maintain as waste load volumes increase and/or outside temperatures become extreme. The upgraded WWPT facility's ability to meet the potential targets (of 12 mg/LNt and 2 mg/L PT) consistently under seasonal peak loads has not been established.

a. Nitrogen:

For the Kraft Foods WWPT's process to properly operate as a waste-to-energy process that treats the wastewater, nitrogen must be added. This addition is estimated based on incoming flow, which can be a challenge given daily production process variations. Currently, the facility typically removes over 96% of Nt entering the WWPT. Since the upgrade in 2008, the facility's best full-month discharge [FN35] of Nt was 1.2 mg/L. For that month, loading volumes into the WWPT were relatively low and temperatures favorable. Even at this best level, the facility would exceed the proposed daily pound limits of the TMDL by 1.4 times.

The proposed Appendix Q total nitrogen levels would not be achievable with the current system at the Kraft Foods facility. A significant capital upgrade to include additional biological nutrient removal would be required.

b. Phosphorus:

Similarly, this recently upgraded facility cannot achieve the proposed Appendix Q allocation level for PT. Milk has a total phosphorus level around 91 mg/L [FN36]. The proposed backstop level for PT is 0.1 mg/L. This would require treatment to reduce the phosphorus levels by nearly 900 times what milk naturally is. Moreover, the proposed PT limit is approximately 35 times more stringent than the action level in the current permit. Currently, the facility typically removes over 93% of PT entering the WWPT.

Wastewater generated by this facility and sent to the WWPT for treatment has phosphorus from a variety of sources. The principal source, of course, is the milk itself. The phosphorus in the milk gets into the wastewater from water used to rinse the cheese or clean the equipment. The facility needs to add phosphates to the incoming water to prevent the precipitation of manganese, which would otherwise affect the product and likely contribute to pipe corrosion. Thus the

wastewater and byproducts that go to the WWPT have a high phosphorus loading. In addition, Kraft Foods' well water PT level is already at the backstop limit of 0.1 mg/L. This further compounds the facility's difficulty in achieving the proposed limit in treated wastewater.

Moreover, the facility's best full-month discharge [FN37] of PT is 0.73 mg/L. Thus under current ideal operations, the facility would not be able to meet the proposed PT limit of 0.1 mg/L

Even if the facility were able to meet the BAT of 0.1 mg/L for PT, it still would not meet all of the proposed requirements relating to phosphorus. For example, the Appendix Q draft would limit PT to 36 lbs/year. The facility's permit is based upon wastewater from cheese making only (not the full flow from converting waste to energy); thus even 0.1 mg/L PT when multiplied by the actual flow will surpass the 36 lbs/year limit (in just two days). These proposed limits are unattainable using the facility's current processes, and it is unknown whether they are technically attainable at all.

Under the proposed TMDL limit of 0.1 mg/L, an additional area of the facility's processes would need to be treated before discharge. Currently, well water used in non-contact cooling (about 300,000 gallons per day) is permitted to be discharged without any further treatment. A tighter phosphorus limit would require either another chemical solution (which has not been identified) or another treatment option, such as ultra filtration, to all incoming water.

[FN30] Biological Nutrient Removal (BNR) Operation in Wastewater Treatment Plants Water Environment Federation (WEF) and American Society of Civil Engineers (ASCE)/Environmental and Water Resources Institute (EWRI). 2006. McGraw Hill, New York.

[FN31] Id.

[FN32] If concentration limits close to the NYSDEC determined BAT (i.e 5 mg/L Nt and 0.5 mg/L Pt) are included in the next round of modified SPDES permits.

[FN33] While Kraft Foods is a member of the Coalition, it does not endorse any statements about the desirability of the NYDEC WIP and instead endorses and signs onto statements concerning USEPA's Chesapeake Bay TMDL.

[FN34] At the time the report for these potential targets was due, Kraft Foods did not have enough data from steady state processing in the upgraded WWTP facility to establish projected operating and/or capital upgrade costs to achieve these potential targets.

[FN35] This is calculated based on a calendar month, not the twelve-month rolling average.

[FN36] Reference: [http://www.milkfacts.info/Nutrition%20Facts/Nutrient%20Content.htm#Tab 1](http://www.milkfacts.info/Nutrition%20Facts/Nutrient%20Content.htm#Tab1).

[FN37] This is calculated based on a calendar month, not the twelve-month rolling average.

Response

EPA agrees with commenter that extremely low temperatures can have an adverse impact on nitrogen removal organisms. Areas that experience cold winters will need to provide additional operational flexibility for effective operation of their facilities. System design should incorporate adequate flexibility to allow plant operators to respond to adverse operating conditions. A rule of thumb is that a temperature change from 20oC to 10oC will decrease the nitrification rate to approximately 30 percent, requiring about three times the mass of biomass in the reactor to produce an equivalent effluent ammonia concentration. Consequently, a system designed for winter nitrification can generally meet year-round ammonia nitrogen limits with proper design or modification. Alternative systems or process enhancements should also be considered.

With regard to costs for upgrades, this will depend upon a number of factors which include influent characteristics, effluent target concentrations and the type of treatment system already in place.

It should also be noted that such treatment upgrades would not be expected to be implemented immediately. New limits will be incorporated into permits at the time they are modified or reissued. In addition, schedules for compliance can be written into permits to provide time to plan and build technological improvements.

With regard to the comment related to backstops, please see response to comment # 0067.1.001.009.

Comment ID 0766.001.004

Author Name: Schafer Christa

Organization: Delaware County Board of Supervisors

OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

WHEREAS, EPA allocations would require wastewater treatment facilities to upgrade nitrogen and phosphorus reduction strategies that would place an unaffordable tax burden on village taxpayers and result is businesses leaving the basin

Response

Please see response to comment 0691.1.001.006

22.8 - STORMWATER

Comment ID 0225.1.001.003

Author Name: Locke Latana

Organization: Fredericksburg Area Association of Realtors (FAAR)

Of particular concern to our industry are the urban and suburban stormwater retrofits that would be required of existing properties, including state and local highways.

Response

EPA points out that the TMDL does not require any specific management measures, only that the relevant WLAs be achieved.

Implementers may choose a variety of combinations of programs and practices.

EPA does believe that retrofits are necessary to achieve the relevant allocations. Most robust stormwater programs should include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Comment ID 0228.1.001.005

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The proposed Draft WIP input deck applies E3 (Everything by Everyone Everywhere) levels of stormwater management retrofit to all urban lands [FN4]. This makes EPA's backstop proposal of requiring 50% of urban MS4 lands and 25% of unregulated lands to meet "aggressive performance standards through retrofit/redevelopment" seem reasonable when compared to the draft WIP, although it is still not practicable, as discussed below.

Over the next 15 years, redevelopment will have an insignificant impact on urban runoff reductions; urban retrofits (independent of redevelopment) will be necessary for more substantial reductions in urban pollutant loads. The Phase 5.3 Chesapeake Bay Community Watershed Model (Bay Model) [FN5] indicates a total of 266,438 acres of impervious surface in Virginia's portion of the Bay watershed (150,340 high density acres and 116,098 low density acres) existed in 2009. Even if half of all development projected in the Bay Model is redevelopment and reduces loads by 50% (an unlikely level of redevelopment and a very aggressive load reduction assumption with regulations currently at 10% and proposed to be 20%), total loads would only be reduced by 8% [FN6] by 2025, nowhere near Virginia's proposal to reduce TN and TP by 45% and 59% respectively compared to 2009 loads [FN7].

Thus, the vast majority of the proposed Urban sector pollutant reduction can only occur if existing impervious surfaces are retrofitted. Exhibit 2 (Cost Effectiveness of Pollutant Removal Options for the Urban Sector Population) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] provides calculations and data sources for the following order-of-magnitude estimates for urban pollutant reductions and costs associated with the EPA backstop and the draft WIP shown in Table 2, below.

Table 2: Order-of-Magnitude Cost Estimate for Urban Retrofit Proposals.

[Please see page 4 of the original letter (Docket ID 0228.1.001.005).] [FN8] [FN9]

Notwithstanding the extraordinary cost, retrofitting 266,000 acres of imperviousness under the current draft WIP (or even 104,000 acres under the EPA backstop) is simply not practicable. Additionally, the next version of the Bay Model is expected to double the impervious area [FN10], which will also double the retrofit requirement. It is difficult to imagine trying to design, construct, and maintain enough rain gardens (with a maximum drainage area of one acre) to treat these surfaces (including every VDOT highway and subdivision street) compared with upgrading 126 significant WWTPs. Clearly, upgrading WWTPs is considerably more practicable from a management perspective.

[FN 4] Based on EPA Comments on Virginia's Draft WIP, 10/4/2010. (Page 6.)

[FN 5] Version released 7/21/ 2010.

[FN 6] The Bay Model 2009 Progress Model Year indicates 13,965 acres of bare construction. The model documentation (US EPA, 2008. Chesapeake Bay Phase 5 Community Watershed Model, Chapter 4 (Page 4-18). U.S. Environmental Protection Agency, Chesapeake Bay Program Office, Annapolis, MD.) states an assumption that 40% will become impervious surfaces (40% x 13,965 acres = 5,586 acres); 5,586 acres/year x 15 years x 50% Redevelopment x 50% Removal Rate / 266,438 acres x 100% = 7.86% Removal from Redevelopment.

[FN 7] EPA Comments on Virginia's Draft WIP, 10/4/2010 (Page 6.)

[FN 9] Total Area = 50% of high density impervious and 25% of low density impervious

[FN8] Urban Retrofit - 50/50 cost allocation between TN/TP

[FN 10] Based on an a memo dated 5/25/2010 received from Peter Claggett (USGS) to Mike Rolband (WSSI), pervious and impervious surfaces are likely to change by a factor of 2 to 3.

Response

EPA believes that retrofits are necessary component of a reduction program to achieve the relevant allocations. Most robust stormwater programs should include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Comment ID 0300.1.001.016

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

VDOT is also concerned with the initiative in the stormwater WLA that would require 50 percent of urban lands not currently included in an MS4 permit to meet redevelopment and retrofit requirements. As discussed previously, stormwater retrofits in urbanized areas are probably the most costly action per pound of nutrient removal. The draft TMDL is unclear as to whether this would be required only if those urban areas become included under the MS4 regulated areas through NPDES regulatory revisions or if it would be required upon adoption of the TMDL. Finally, if additional reductions in nutrient loading are necessary outside current MS4 geographic limits, then VDOT requests that alternative mechanisms (such as a nutrient exchange program) be allowed.

Response

EPA does believe that some amount of urban retrofitting is necessary in order to achieve the necessary pollutant reductions, and that a robust MS4 program will include a retrofit element. There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Please see response to Comment 0067.001.009

Comment ID 0379.1.001.008

Author Name: Shields Wyatt

Organization: City of Falls Church, Virginia

Finally, in developing the Chesapeake Bay TMDL, we must all remember that the current conditions in our urbanized watersheds developed over many decades and that most of the land is privately owned. Plans and programs developed under the current initiatives need to take into account what can be achieved by localities, given their unique policy and budgetary constraints over the short and long-term. If the costs of these stormwater management efforts are made to be too high, or if the stormwater management standards effectively become unattainable, these beneficial redevelopment efforts will be hindered.

Response

EPA believes that robust MS4 programs are necessary to achieve the relevant allocations. There are a variety of solutions implementing stormwater controls, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Comment ID 0389.1.001.020

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

The Cost of Retrofits Outweighs the Benefits

The Chesapeake Bay Watershed Model predicts that, after implementation of New York's Watershed Implementation Plan, urban runoff will contribute approximately 5.7% of New York's delivered Nitrogen load to the Bay. For this model, 120,285 acres are categorized as contributing urban runoff, 835,421 acres are categorized as agriculture, 3,020,810 are categorized as forest, and 35,357 non-tidal water deposition. To meet the loadings assigned to New York for Nitrogen in the TMDL, EPA has proposed that one half of the regulated (under MS4 permits) urban runoff acres be required to be retrofitted to address runoff, and that one quarter of presently unregulated urban runoff also be retrofitted to treat runoff. The total area to be retrofitted would be approximately is between 30,000 acres and 60,000 acres.

EPA's Urban Stormwater Retrofits Manual (Appendix E, Page 2) provides a range of costs for Urban Stormwater Retrofits of \$58,000 to \$150,000 per impervious acre. If the urban runoff acres in the New York's portion of the Chesapeake Bay Watershed to be regulated is one quarter of the total acreage and those acres are 25 % impervious on average (a conservative assumption), then the cost for retrofitting those areas is between \$430 million and \$1.3 billion. If the total acreage to be retrofitted is closer to 50% of the urban runoff acres, and a less conservative (and more likely) assumption of 50% imperviousness were used the cost would be could double to closer to \$2.2 billion.

Very roughly, the cost for retrofitting such large land areas would be between \$0.4 and \$2.23 billion. This proposed urban runoff retrofitting would only address a portion of the 5.7 percent of New York's Nitrogen load associated with urban runoff. Even a qualitative assessment suggests that the benefits of these retrofits are not justified by the costs. EPA's retrofit proposal is excessive.

2. EPA's Proposal Would Require Almost a Zero Discharge of Runoff

To require anything more than an un-measurable effect on loads to the Bay, an urban retrofit program would have to reduce runoff on retrofitted projects to zero or near zero. Such an aggressive program would mean that implementation costs for municipalities and other MS4s would be at the high end of the estimate, closer to \$2 billion than \$0.4 billion dollars. This EPA proposed backstop would go beyond any statutory or regulatory retrofit requirement that New York has imposed in any other watershed, including the New York City Watershed, which is being for the purpose of protecting human health. In other watersheds where New York has imposed retrofit requirements, the basis for the requirement was an assumption that the most likely retrofits would be in already publicly owned transportation corridors (ditch retrofits to water quality swales) and rooftop disconnection. Such practices would tend to be far less costly; taking advantage of 'low hanging fruit' opportunities

New York has required some retrofits in watersheds where the portion of the loading associated with urban stormwater exceeds 10 % of the necessary load reductions. However, even where urban stormwater is a significant portion of the pollutant loading, New York does not consider it feasible or effective to rely on retrofits as the predominant means of meeting load reductions.

Response

EPA does believe that some amount of urban retrofitting is necessary in order to achieve the necessary pollutant reductions, and that a robust MS4 program will include a retrofit element. However, where state programs propose solutions that can meet the overall wasteload allocations EPA will not automatically impose backstop retrofit requirements on MS4s. Fortunately, since the final state WIPs were much improved from the drafts, EPA chose to reduce or remove the EPA backstop allocations, from the TMDL. The backstop framework is one logical algorithm to achieve the allocations, but not the only one. EPA continues to encourage states to develop the frameworks that will work best for their jurisdictions' sets of unique circumstances.

There are a variety of solutions for retrofitting sites with physical constraints, and a number of communities have discovered cost effective ways to address these challenges, both in public rights-of-way and by incentivizing retrofits on private land.

Comment ID 0411.1.001.007

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

6. It is important to recognize the difference between small municipal separate storm sewer systems (MS4) communities and large phase 1 MS4 communities. There have been discussions on making all communities comply with the more stringent phase 1 requirement which does not recognize the difference in size and impact of a community. A "one size" fits all approach is not practical for administration of SWM program statewide.

Response

EPA appreciates the comment.

Comment ID 0418.1.001.018

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Pennsylvania's stormwater regulations require that post-development stormwater volume, quality, and flow rate match pre-development levels, however, this provision is expressed as a narrative standard.[29] experts familiar with development practice under the Commonwealth's Stormwater Management Act and regulations, the lack of specificity in the standard has led to widespread inconsistencies and frequent abuse. This is, unfortunately, one of the overall frustrations of EPA's stormwater program, as noted by the NRC panel and the Agency itself in its recent MS4 Permit Improvement Manual. 30 NRDC echoes EPA's concern over the lack of objectivity and clarity in the narrative approach adopted by Pennsylvania. We fully agree with EPA's assessment that Pennsylvania "must apply a strong performance standard that is likely to be most effective if based on a volume or flow metric, and formulated as a retention (not detention) standard with the objective of stable hydrologic condition." [31]

[29] Pa. Code Title 25, Chapter 102; see PA Draft WIP at 89.

[30] US EPA, Municipal Separate Storm Sewer System Permit Improvement Guide, April 2010.

[31] US EPA, PA WIP Evaluation Summary, at 2.

Response

EPA appreciates the comment.

Comment ID 0418.1.001.020

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Virginia assures EPA and the Bay community that impacts from future development will be effectively eliminated through the application of the new stormwater regulations that it expects to implement after issuance of the TMDL.[FN 32] Ostensibly, these regulations will require that post-construction loadings of nutrients and sediment not exceed levels expected from a generic, undeveloped site.[FN 33] At this stage, it is unclear from Virginia's WIP how (or even whether) these proposed new regulations will actually achieve this goal. EPA must only consider Virginia's WIP as "reasonable assurance" upon demonstration that any revised regulations will meet the same standards of objectivity, measureability, and effectiveness set by other states in the region and recent EPA guidance or technical statements.

Maryland is alone among these three states in adopting regulations that hold stormwater discharges from new development and redevelopment to a clear, hydrologically based standard that requires full consideration and implementation of low impact development management practices. Though concerns remain about the strength of the standards, the State's commitment and ability to enforce compliance with these regulations, and their embrace by the regulated community, Maryland's revised stormwater regulations must be considered by the rest of the Bay community. We encourage EPA to remain closely engaged with MDE staff in order to evaluate the effectiveness of these regulations, and to ensure that they provide measureable benefits in line with the expectations detailed in Maryland's WIP.

[FN 32] VA WIP at 76.

[FN 33] Id. at 13, 77.

Response

EPA appreciates the comment.

Comment ID 0528.1.001.005

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

Lastly, it is interesting to note that, in the past, both state and local agencies have made requests to EPA that permits and inspections for the Virginia Stormwater Management Permit (VSMP) be regulated by the localities. EPA has historically flatly refused these requests. However, today the story has changed and the draft TMDLs are mandating a shift in the program responsibilities to localities. Unfortunately, EPA's deadlines fail to provide localities with the time necessary to adequately train staff and educate the public.

Response

The TMDL sets allocations for nitrogen, phosphorus and sediment throughout the Bay Watershed. It does not say anything about who should do stormwater inspections.

The federal stormwater regulations provide for oversight of programs, including inspections, at all levels: federal, state and local.

Comment ID 0746.1.001.030

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

In New York State, the stormwater sector represents a small percentage of the overall nutrient loading leaving the state and reaching the Bay. As per the New York State Tributary Strategy for Chesapeake Bay Restoration (2006), approximately 5 percent of New York's nutrient load is attributed to urban sources. Furthermore, it is anticipated that this percentage will become further reduced, given the recent New York State legislation placing restrictions on nutrients in home fertilizers.

1. There Is No Need For NY to Adopt the Region 3 Urban Stormwater Permitting Guidance.

The NY portion of the Bay watershed is totally different from most of EPA Region 3. Our portion of the watershed is 76% forested and 21% agriculture. The New York portion of the Bay watershed is not a largely paved urban watershed. We haven't had, and don't expect, the significant population growth and urban/suburban growth that the mid-Atlantic portion of the Bay watershed is experiencing.

Response

The referenced document, Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed (EPA, 2010), was developed to apply to all stormwater programs, regardless of percentage of overall load of selected pollutants. In order to meet the objectives of the Clean Water Act for all receiving waters robust stormwater programs are necessary everywhere.

Comment ID 0766.001.003

Author Name: Schafer Christa

Organization: Delaware County Board of Supervisors

OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

WHEREAS, EPA allocations would require approximately 50% of the existing impervious surfaces (parking lots) to be retrofitted with stormwater best management practices, an exercise that would be detrimental to local businesses

Response

EPA believes that robust stormwater management is necessary to achieve the relevant allocations, including retrofits of existing impervious surfaces. There are a variety of cost-effective solutions for retrofitting sites, in particular for surfaces like parking lots.

22.9 - GENERAL/MISCELLANEOUS**Comment ID 0038.1.001.014**

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

The use of TMDLs are a great help in this situation because they can be used to primarily focus on the problems of agriculture runoff and wastewater. Under the Clean Water Act, I believe the EPA should rewrite the previously written TMDL to propose stricter standards of point sources. I also think that the EPA should have less pollution discharge permits. The more of these permits the EPA allows, the less effective the CWA and TMDLs will be.

Response

The commenter states that TMDLs can be useful in dealing with environmental problems associated with agriculture, wastewater and urban runoff (stormwater). EPA agrees with the commenter's statement to the extent that this TMDL is intended to reduce the amounts of total nitrogen (TN) and total phosphorus (TP) from these and other wastestreams. The end result of this TMDL is, as the commenter suggests, stricter standards for these two pollutants to be placed on point sources. Agricultural, municipal wastewater and urban runoff (stormwater) are all regulated under the National Pollutant Discharge Elimination System (NPDES) permit program and the purpose of the TMDL is to place more restrictive limits on TN and TP discharges from permitted sources. EPA does not agree that fewer NPDES permits would equate to the discharge of fewer pollutants to the waters of the United States; nor does it agree that the issuance of more permits lessens the effectiveness of the CWA or TMDLs. Under the CWA, EPA and the regulating states are required to issue permits to all facilities which discharge pollutants from any point source into the waters of the United States.

Comment ID 0054-cp.001.001

Author Name: Dunning Rich

Organization: City of Hornell, New York, Water Pollution Control Plant

Thank you for this chance to comment. My name is Rich Dunning I am the Chief Operator of the Hornell Sewage Treatment Plant. The draft TMDL has a basic inequity built into it with regard to establishing nutrient limits for publicly owned wastewater treatment plants, ms 4's , and cafos.

Response

Please see response to Comment 501.1.001.005

Comment ID 0202.1.001.009

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

E. Credit for Past Nutrient Reductions & Nutrient Increases

In the development of TMDLs, credit should be given to New York State for past reductions in nutrient loadings, including those resulting from the upgrade of the Binghamton-Johnson City Joint Sewage Treatment Facility, the upgrade of the Town of Erwin WWTP, and the upgrade of the Village of Canisteo WWTP, the construction of the Whitney Point Reservoir, the construction of the Alfred-Almond Reservoir, declining agricultural lands, and increasing forested lands. Furthermore, in the development of TMDLs, the USEPA should recognize states that have experienced increased population growth and associated increased nutrient loadings to the Bay.

Response

Please see response to Comment 0080-cp.001.001

Comment ID 0216.1.001.002

Author Name: Johnson Rick

Organization: Algae Producers of America

I would like to share with you progress which the company I represent, Algae Producers of America (APA) and its partner organizations, has achieved in realizing the level of nutrients reduction which are required. Before sharing the results of our efforts, it is important to share a little bit about APA.

APA is an Ohio based company located in the greater Cleveland area. Our goal is to provide algal based solutions to current and emerging market needs. To accomplish this, we have established an Open Innovation Technology Platform consisting of member organizations from universities, industry and commercial users. Of our partner organizations, approximately 39% are actively involved in some form of bio-remediation effort. Additionally, APA is the lead commercial partner for a recent State of Ohio Third Frontier Grant awarded to Ohio University (OTF 10-510, titled Center for Algal Engineering Research and Commercialization). The purpose of this Third Frontier Grant is to establish a Center of Excellence for the development and commercialization of algae-based technologies, with an emphasis on use of waste nutrients. In addition to Ohio University and APA, this effort involves 10 additional partners, including several major Fortune 500 international companies.

We recently submitted comments to the Ohio EPA in response to a request for assistance from industry on available technologies which might be usable to the State of Ohio in addressing several excessive nutrient-related issues which the state faced this past summer. It occurred to me that these same technologies may be usable to you in your efforts. The following comments are offered for consideration and review for inclusion as part of the overall comprehensive strategy you have undertaken

Response

Thank you.

Comment ID 0216.1.001.003

Author Name: Johnson Rick

Organization: Algae Producers of America

The potential use of algae-based technologies to reduce nutrient loads is a recognized technology. The US Department of Energy Aquatic Species Program identified this technology as a viable use of the nutrients inherently present in wastewater treatment facilities. While there are several companies who claim to be able to reduce nutrient loads through the use of algae-based systems, very little is known about their effectiveness. We have demonstrated the ability to significantly reduce nutrient loads at multiple sites. The data summarized below is a compilation of results obtained from four separate sites located across multiple northern and northwestern states and includes both wastewater treatment facilities (up to 8M GPD capacity) and industrial facilities:

[Figure 1. Please see original document 0216.1]

In addition to the above data, the following third party analysis data was recently obtained from one of our recent demonstration sites (a 3.5M GPD wastewater treatment facility) on multiple effluent streams:

[Figure 2. Please see original document 0216.1]

The above results clearly demonstrate the ability to exceed current capabilities of Enhanced Nutrient Reduction (ENR) technology. Our technology offers several distinct advantages:

- o Our solution is based on the incorporation of a "bolt-on" closed system. This system uses treatment modules that can be sized to the individual need. This allows for a much smaller footprint than conventional "open pond" designs. For example, a two acre site based on our solution could treat up to 10M GPD.
- o Being a bolt-on design, no significant change to an existing infrastructure is necessary. Our solution will accept incoming effluent from either a primary or secondary treatment stage and the resulting post-treated effluent can either be directly discharged or be further processed for chlorination if desired.
- o The above two items are significant in that individual treatment modules can be developed for application at multiple point sources. Further, the results above have been demonstrated in year-round conditions and are not restricted to

warmer month operation.

Response

EPA does not endorse particular technologies or brands. Rather, as a regulatory agency, EPA writes permits which specify limits to be met by the permittee. It is the permittee's responsibility to purchase and install the most advantageous technology for his facility to meet the limits specified by his permit.

Comment ID 0234.1.001.001

Author Name: Dickey Dean

Organization: Prince William County Service Authority (PWCSA), Virginia

PWCSA has just requested a Certificate to Operate (CTO) the upgrade and expansion of the H.L. Mooney WRF to 24 MGD. The capital cost of the upgrade and expansion was approximately \$120 million. The rate payers of Prince William County will bear the entire costs of the additional Operations and Maintenance (O&M) costs of running the upgraded facility. The upgrade was primarily driven by the requirements of the Chesapeake Bay Program as codified in the Virginia Nutrient General Permit (VAN010018). The waste load allocation (WLA) assigned to our facility requires a limit of technology (LOT) concentration for Total Nitrogen of 3mg/l at our expanded design flow of 24 MGD. H.L. Mooney WRF has met the extremely stringent phosphorous requirements of the Virginia Potomac Embayment Standards (PES) for decades. The PES requires monthly TP limit of 0.18mg/l and a weekly maximum of 0.27mg/l with corresponding mass loads. The Virginia Nutrient General Permit Total Phosphorus WLA was based on the sub-LOT concentration of 0.18mg/l at a design flow of 24 MGD.

A major municipal upgrade and expansion of this nature is expected to serve the community's needs for the 20-year expected life. Clearly, regulatory stability is required to maintain public support for public expenditures of this magnitude. PWCSA believed, and told our rate-payers that the upgrade and expansion of the H.L. Mooney WRF did our part, and more, to meet the goals of the Chesapeake Bay program as defined in the Virginia Potomac Tributary Strategy and later codified in the Virginia Nutrient General Permit. We strongly object to any attempt by EPA to reduce the WLA currently reserved for the H.L. Mooney WRF via any mechanism during the TMDL process.

Response

Please see response to comment 0691.1.001.006.

Comment ID 0252.1.001.004

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

The overall comment is that the City is concerned with fairness - that the data will lead to a fair distribution of effort among target sectors;

Response

EPA appreciates the commenter's statement in support of the Bay TMDL.

Comment ID 0252.1.001.006

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

that actual impacts are measured and used to fairly account for net mandates, including positive efforts already underway and completed

Response

Please see response to comment 0252.1.001.006.

Comment ID 0256.1.001.006

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

LGAC is most directly concerned with the impact of the Bay TMDL on wastewater treatment plants and, where it applies, on MS4 permits.

Response

The complete comment is as follows: LGAC is most directly concerned with the impact of the Bay TMDL on wastewater treatment plants and, where it applies, on MS4 permits. More stringent regulations and expensive retrofits for stormwater facilities to meet TMDL requirements will have an enormous impact on the ability of local governments to pay for them. In Pennsylvania, for example, the state is reported to be facing a five billion dollar deficit which has already caused environmental programs and staff to be drastically reduced.

Please refer to the response to comment 0691.1.001.006

Comment ID 0342.1.001.003

Author Name: Levine Thomas

Organization: Moshannon Valley Joint Sewer Authority

The Authority believes that all point sources are carrying a disproportionate share of the Chesapeake Bay "pollution diet" and recommends that Environmental Protection Agency look to the following non-point sources for nutrient pollution reduction:

- Over fertilization of lawns and landscaping
- Over fertilization of country clubs and parks
- Manure generated from fish and migratory birds
- Actual results from agricultural best management practices (BMP's)
- On-lot sewage disposal systems
- Forest/forestry Dairy agricultural feeding operations
- Abandon strip mine operations

Response

Thank you for your comment. EPA is aware of the contribution of non-point source pollution and has accounted for this in its modeling and in the TMDL. While EPA notes commenter's observation that that point sources may carry a disproportionate share of the "pollution diet" it should also be noted that since at least 1980 EPA and the Bay states have engaged in voluntary efforts to understand and limit non-point source contributions to the Bay. These efforts continue in tandem with the regulatory approach implicit in the TMDL and NPDES programs.

Comment ID 0530.1.001.007

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

Conclusion

Pennsylvania builders clearly are on the front line of defense when it comes to protecting the Bay. While challenges still remain, most builders are operating on the edge of technology in terms of what they can feasibly achieve, and thus there are limited improvements that can be garnered from the industry. Despite these demonstrable gains, improvements, and impediments, many still blame the development community for the majority of the problems in the Bay and other watersheds, although even EPA's estimates show that new construction is not a leading source of pollution problems, "Urban pollutants" do not come solely from new construction, and new construction should not be required to address 100% of that that contribution. It is the responsibility of all who live, work, and play in urban areas to help reduce their collective contributions. EPA has already addressed the "during construction" phase and requires extensive controls and best management practices to ensure that sediment does not flow off construction sites.

Response

EPA does not agree that opportunity is yet very limited for improvement by America's builders. While it is certainly true that environmental awareness by builders has improved, and that many builders strive to limit ground disturbance, stormwater runoff and implement BMPs, there still remains ample opportunity for improvement. Builders are not held responsible for the reduction of 100% "urban pollutants", rather builders are asked to do their share to limit the amount of "urban pollution" from their job sites. EPA and the states look forward to working with builders to find ways to limit environmental damage resulting from construction.

Comment ID 0553.1.001.006

Author Name: Uzupis John

Organization: Synagro Technologies, Inc.

States are expected to have difficulty enforcing the TMDL mandate. This expectation is causing concern among point sources already regulated by EPA and state environmental organizations.

- Wastewater treatment plant authorities worry that states, finding the task of writing TMDLs for runoff onerous, will instead force sharper reductions from point sources, which have discharge permits that are easier to enforce.
- Since some estimates place atmospheric deposition at an approximately 50% contribution to Chesapeake Bay pollution, many believe a water TMDL cannot achieve water quality goals, since atmospheric pollutants often originate in other states or countries. Therefore, as described above, many point source contributors, such as wastewater treatment facilities fear ever-tightening restrictions on output as states attempt to meet TMDL goals any way possible.

Response

EPA understands the commenter's concern. While it is true that implementation of the TMDLs will, in some cases, require more stringent levels of control on permitted facilities, EPA and the states recognize that this is not the end of the story. EPA and the states are fully cognizant that atmospheric deposition is a major cause of pollution in the Bay and are working to address those issues through the Clean Air Act authorities. The Bay TMDL includes an allocation for air deposition that reflects substantial reductions in air deposition over the next decade. In addition, EPA and the states are working to curb pollutants entering Bay waters through stormwater, agriculture and non-point sources.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 23. LA

Pages 2177 – 2217

23.0. LA	Pages 2177 – 2177
23.1. Agriculture	Pages 2177 – 2192
23.2. Atmospheric Deposition	Pages 2192 – 2206
23.3. Forest Land	Pages 2206 – 2210
23.4. Septics	Pages 2210 – 2212
23.5. Non-regulated Stormwater Runoff	Pages 2212 – 2214
23.6. Ocean Inputs	Pages 2214 – 2214
23.7. Streambank and Tidal Shore Erosion	Pages 2214 – 2214
23.8. Tidal Resuspension	Pages 2214 – 2214
23.9. On-site Wastewater Treatment Systems	Pages 2214 – 2214
23.10. Wildlife	Pages 2214 – 2215
23.11. Natural Background	Pages 2215 – 2215
23.12. General/Miscellaneous	Pages 2215 – 2217

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

23 - LA

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

23.1 - AGRICULTURE (AFOS)

Comment ID 0062.1.001.012

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

The Draft TMDL also threatens to impose allocations on small entities that raise one or more animals, but are not large enough to require a permit under the Clean Water Act. According to the U.S. Department of Agriculture, in 2002 there were a total of 111,692 livestock operations of all sizes in Virginia, West Virginia, Maryland, Delaware, Pennsylvania, and New York. In 2001, EPA estimated the total number of animal feeding operations with 300 animal units or more in these states to be 4,360. While these are statewide numbers, and the number of operations in the Chesapeake Bay watershed will be smaller, these numbers indicate that a very large number of small livestock operations could be affected by the Draft TMDL. At this point, the potentially affected small farms are not individually listed in the Draft TMDL, but the threat to subject them to federal regulation is there.

Response

Thank you for your sharing your concern over small animal feeding operations. EPA's field experience as we have visited a number of small AFOS is mixed. We have observed some reasonable BMPs that have been implemented and also have documented a number of manure management concerns. We continue to work with conservation districts and state agencies to discuss how best to address many of the shortcomings from AFOS.

In the final TMDL EPA has reduced or removed the backstop allocations that EPA had imposed in the Draft TMDL. An important consideration in tracking implementation of this TMDL is to assure that the control actions identified in the State WIPs are actually implemented. If implementation stalls, EPA is prepared to seek alternate avenues for control. One particular area for the CAFO program is to designate small animal operations as this type of regulatory activity is clearly in the Clean Water Act. AT this point in time no decision has been made to launch ahead to designate operations but as you mention in your correspondence there are a large number of small operations that could be brought in the regulatory program.

Comment ID 0139.1.001.014

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

5. Improve flexibility for farmers implementing BMP's

Response

Please see response to comment 0648-cp.001.002

Comment ID 0168-cp.001.002

Author Name: Comment Anonymous

Organization:

DO NOT PUT THE BURDEN ONTO FARMING! They have been suppling our FOOD ! Why are you trying to make it even harder to feed us all! More restrictions will put more farmers out of business! That will increase our dependance on other countries to help this country ! Let us drill ! Do not restrict the farming industry ! Make the other states come up to the level New York State is already !

Response

Thank you for your comments. Natural gas extraction from the Marcellus Shale formation is the number one emerging threat to the restoration of the Chesapeake Bay. The technique of hydraulic fracturing (fracking) used to extract the natural gas from the shale over one mile below the surface has damaged streams, water supplies and forests in Pennsylvania. The drilling and fracking process presents three water-related problems. The first is withdrawals. Gas companies need about 5 million gallons to frack each well. They pull the water from streams, and because nearly three-quarters of the Marcellus is in the Susquehanna River basin, much of that water has and will come from those feeding the Bay's largest tributary. The companies have occasionally pulled water from small headwater creeks that are slow to refill, which can change temperatures and oxygen levels and endanger fish. The second is the fracking wastewater, called flowback, which is usually stored in a plastic-lined impoundment before it can be trucked to a treatment plant. Critics worry that the wastes could spill during transit or operations and run into waterways or seep into groundwater. Because fracking waste can have five times as much salt in it as ocean water, groups such as Trout Unlimited worry that accidents like that will forever change the ecology of fresh, coldwater streams. The third problem is groundwater contamination from methane accidentally released through the drilling. Methane contamination has been reported in other states where drilling has occurred, and critics worry it could become a bigger problem in Pennsylvania. In regards to forests, the concern is loss and fragmentation. According to a recent report by the U.S. Department of Agriculture's Forest Service and the Conservation Fund, the Bay watershed loses 100 acres of forests a day, and is likely to lose nearly 10 million acres by 2030. That's of great concern for the Chesapeake Bay watershed, because forests have long been considered the best land use to protect the Bay. They absorb nitrogen, slow erosion, provide crucial fish and bird habitat and promote biodiversity. The rush for gas has the potential to accelerate those losses and break up increasingly rare, large, unbroken blocks of forest, since each drill site requires at least five acres for a well pad, and miles of roads and pipelines that fragment the forest.

Comment ID 0181.1.001.005

Author Name: Ranck Rebecca

Organization: Wenger's Feed Mill, Inc.

When everyone is held accountable for their production and operations, then you will start to see a greater reduction of nutrient and sediment loading to the Bay.

Response

The TMDL is based on extensive evaluation of loading data from all sectors - wastewater, storm water runoff, forests, atmospheric deposition, and agriculture – and restoration of the Bay will necessitate reductions in loadings from each of these sectors. In the TMDL EPA has apportioned wasteload allocations and load allocations to achieve the reductions in all sectors that will be necessary to attain water quality standards in the Bay.

Agricultural operations in the Bay watershed have made significant progress in implementing management practices to reduce nitrogen, phosphorus, and sediment loadings in many areas of the Bay watershed. Many operations have implemented innovative approaches to reducing nutrient runoff from cropland and animal agriculture areas. Nevertheless, the record for this action includes detailed data showing that agriculture is the largest single source of nutrients and sediment to the Bay. EPA has documented that significant opportunities still exist to implement improved nutrient management practices for both cropland agriculture and animal agriculture, including more widespread adoption of innovative or “next-generation” practices. Within the animal agriculture sector, concentrated animal feeding operations (CAFOs) can achieve load reductions by incorporating more advanced nutrient reduction measures into their nutrient management plans. Non-CAFO animal feeding operations, which are currently subject to less regulatory control, can be designated or defined as CAFOs where necessary to achieve nutrient reductions for impaired water bodies.

The TMDL, and the activities being taken pursuant to the Executive Order and the settlement agreement, reflect the need to reduce loadings to the Bay from all sources – not just agriculture – through a variety of regulatory and non-regulatory practices that are equitable, reflect different sectors’ contributions to impairment and opportunities for further progress, and the best possible science.

Comment ID 0230.1.001.019

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA's Backstops Eliminate Planned Agricultural Load Reductions Despite Those Controls Being Among the Most Cost-Effective Measures for Improvement

The bulk of responsibility for nutrient reduction in the Draft TMDL has been unfairly shifted to the wastewater sector, particularly on the James River. The level of effort associated with EPA's proposed "backstop allocation" for the James River basin approximates the status quo for agriculture, while imposing near limit-of-technology controls on wastewater point sources. This disparate approach disregards the rules previously established in the TMDL development process that were designed to achieve fairness and equity in responsibility among sectors and makes no economic sense.

Response

The Chesapeake Bay Program partnership and the agricultural community, have made significant past progress towards addressing the loss of nutrients and sediments to the tidal Chesapeake Bay. The agriculture and point source sectors, including municipal waste water treatment plants, have achieved the majority of the pollution reductions to date. Another important point source sector where much more progress needs to occur is pollution from urban areas. As you may know agriculture represents the largest managed land use within the Chesapeake Bay watershed, as well as the largest single source of nutrients and sediment entering the Bay. Consequently, the Bay states are seeking additional nutrient and sediment reductions from the agricultural sector to assist with achieving the water quality requirements of the Chesapeake Bay TMDL to be released by December 31, 2010 through their supporting Watershed Implementation Plans (WIPs). A portion of this continued reliance by the Bay states to achieve future nutrient and sediment reductions is based on continued support from municipal treatment plants, equitable pollution reductions from urban areas as well as from the agricultural community.

Comment ID 0285.1.001.001

Author Name: Rebecca Sutton and Craig Cox

Organization: Environmental Working Group

Environmental Working Group is a research and advocacy nonprofit with considerable expertise in U.S. agriculture. Our goal is to bring the best data and science to bear to inform the development of policy to address agriculture's environmental challenges.

The reduction of agricultural pollution necessary to restore the health of Chesapeake Bay is a critical environmental challenge receiving considerable Environmental Protection Agency attention. As the agency evaluates state Watershed Implementation Plans (WIPs), EWG urges the EPA to focus on thresholds for land application of phosphorus as an appropriate indicator of "sufficient reasonable assurance" of reductions in agricultural non-point source pollution.

Response

Please see response to comment 0228.1.001.002.

Comment ID 0327.1.001.005

Author Name: Stewart Steve

Organization: Baltimore County

- **Shoreline Erosion:** While mentioned in the TMDL document, there is no loading ascribed to this source. Given the immediate proximity of shorelines to shallow water habitat and the detrimental effect of sediment on water clarity and the ability to support SAVs, greater effort needs to be made to quantify the amount sediment, phosphorus, and nitrogen from this source.

Response

Estimates of the sediment and nutrient loads associated with tidal shoreline erosion are included in the inputs of the Water Quality and Sediment Transport Model of the tidal Bay. Generally, the sediment loads from shoreline erosion are equivalent to sediment loads from the watershed. Estimates of the fastland or shore recession rate, the elevation of the fastland, and the subtidal erosion rate were used to develop these shoreline erosion estimates.

Tidal shoreline erosion is actually a combination of the erosion of fastland (or shoreline) and nearshore erosion. Nearshore erosion is subtidal and usually unseen. Subtidal erosion can be accelerated when shoreline protection activities such as stone revetment are used. That practice typically cuts off fastland erosion, but the reflected wave energy continues subtidal erosion until the wave energy no longer scours the bottom to the depth of a meter or more.

Comment ID 0340.1.001.008

Author Name: Miner Steven

Organization: Accomack County, Virginia

Please consider:

1. Sharpening the science of practices which can be voluntarily implemented or done at reasonably added cost to our farm industry,

Response

Please see response to comment 0648-cp.001.002

Comment ID 0510.1.001.004

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

State agriculture departments are at the forefront of efforts in the region to address water quality in the Chesapeake Bay. Our members in the Chesapeake region -and nationwide-are committed to addressing water quality, and other environmental challenges, in an effective and responsible manner. In the Chesapeake Bay watershed, agriculture and forestry producers are among those who have made possible the significant reductions in nutrient and sediment loadings to the Chesapeake Bay that has occurred over the past 25 years. Even EPA's data show that since 1985 the agriculture community has reduced phosphorus loadings by over 21 percent, nitrogen loadings by over 27 percent, and sediment loadings by over 24 percent from 1985.[FN1] However, EPA's models do not account for many agricultural

and forestry practices that are currently being employed in the Chesapeake Bay Watershed to protect water quality. Thus, the Draft TMDL fails to acknowledge the success that has been achieved in the Bay by the efforts of the agricultural community and others. It is imperative that the watershed jurisdictions be afforded wide latitude in issuing TMDLs for nutrients and sediment that accurately reflect the tremendous progress that has been made and that build on that success, rather than having federal mandates imposed upon them. It is vital that EPA consider the benefits derived from agriculture and the risk of driving agriculture out of the watershed through this process.

[FN1] See EPA Presentation at the September 29, 2010 public meeting on the Draft TMDL in the District of Columbia, at 23-25 (available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/dcpblicmeetingrakmods.pdf).

Response

The Chesapeake Bay Program partnership and the agricultural community have made significant past progress towards addressing the loss of nutrients and sediments to the tidal Chesapeake Bay. The agriculture and point source sectors, including municipal waste water treatment plants, have achieved the majority of the pollution reductions to date. Agriculture continues to represent the largest managed land use within the Chesapeake Bay watershed, as well as the largest single source of nutrients and sediment entering the Bay. Consequently, the Bay states are seeking additional nutrient and sediment reductions from the agricultural sector to assist with achieving the water quality requirements of the Chesapeake Bay TMDL to be released by December 31, 2010 through their supporting Watershed Implementation Plans (WIPs). A portion of this continued reliance by the Bay states to achieve future nutrient and sediment reductions is based on improving the tracking and reporting of both cost shared and non-cost shared agricultural practices. The verification and crediting of these practices by EPA may result in more conservative nutrient and sediment reductions as a result of a comparison to approved practice implementation and maintenance standards, and associated effectiveness value estimates.

Comment ID 0510.1.001.007

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

EPA acknowledges that the "Chesapeake Bay TMDL is the largest, most complex TMDL in the country, covering a 64,000-square-mile area in seven jurisdictions." Draft TMDL, at 2-7. EPA is proposing two separate sets of load allocations and waste load allocations for three pollutants in 92 water body segments. Thus, the Draft TMDL is, in fact, 552 TMDLs.

Response

The Chesapeake Bay TMDL released on December 31, 2010 is a composite of 92 TMDL load allocations based on the 92 tidal segments of the Chesapeake Bay proper. Within each of the TMDL load allocations is a distinction between point sources and non-point sources; e.g. load allocations (LA) and waste load allocations (WLA). This distinction between sources within a TMDL is

typical of the TMDL process and is not specific to the Chesapeake Bay TMDL. Unlike the draft TMDL, which proposed allocations based on “hybrid backstop allocations,” “full backstop allocations”, and allocations based on current water quality standards, the final TMDL will include one set of wasteload and load allocations for each of the 92 tidal segments of the Chesapeake Bay and its tributaries. Furthermore, the final TMDL is based only on the applicable WQS.

Comment ID 0510.1.001.014

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

Additionally, we object to the draft backstop allocations for agriculture operations. In particular, there are several concerns related to the management of animal feeding operations (AFO) as concentrated animal feed operations (CAFO) and imposing CAFO permitting requirements on all AFO's.

EPA's authority to designate AFOs as CAFOs is governed by 40 C.F.R. 122.23(c). However, that authority is limited. First, the AFO must actually discharge pollutants.[FN2] Second, either the state or the EPA Regional Administrator must first make a determination that the particular AFO "is a significant contributor of pollutants to waters of the United States." Third, if a state is authorized to carry out the CWA permitting program (which includes every watershed jurisdiction except for the District of Columbia) then the Regional Administrator may designate an AFO as a CAFO only if "the Regional Administrator has determined that one or more pollutants in the AFO's discharge contributes to an impairment of a downstream or adjacent State or Indian Country water that is impaired for that pollutant." 40 C.F.R. 122.23(c)(1). EPA will not be able to rely on its Watershed Model to make these determinations, because the model cannot predict water quality impacts at the individual facility level. Thus, EPA will have to develop site-specific data before it can make such a determination.

Notably absent from the regulation is the authority to designate an AFO as a CAFO because EPA does not agree with a state's WIP. Accordingly, EPA's claim (in both its backstop allocation and in its evaluation of state WIPs) to be able to broadly use residual designation authority against AFOs is invalid.

[FN2] See *Waterkeeper Alliance et al. v. EPA*, 399 F.3d 486, 504 (2d Cir. 2005); *Service Oil, Inc v. EPA*, 590 F.3d 545 (8th Cir. 2009).

Response

Thank you for providing comments about EPA's designation authority for animal feeding operations. The provision to designate an animal feeding operation has been a provision in the Clean Water Act for quite some time although this action has rarely been exercised by EPA. However, under appropriate circumstances, EPA may consider using its authority to designate an AFO as a CAFO. In these cases, EPA will utilize the protocol set forth in 40 CFR Section 122.23(c). EPA developed backstop allocations for this sector based assumptions about tighter controls on federally permitted point sources of pollution.

Comment ID 0517.1.001.005

Author Name: Miller Christopher

Organization: Piedmont Environmental Council

PEC believes that EPA has too readily dismissed the potential for voluntary, incentive based programs to achieve some of the goals for the reduction of non-point source pollution, particularly in the agricultural sector. The rhetorical device of claiming that the historic reliance on voluntary programs in the agricultural sector to reduce non-point source contributions of sediment has failed ignores the fact that pollution from agricultural sources has declined, whereas pollution from urban and suburban non-point sources has increased dramatically

Cattle, other livestock, and the equine industry, along with the hay and grain that sustains them, are the dominant agricultural uses. In the past decade, growing interest in local food supply and agricultural tourism has reinvigorated produce production. Vineyards and wine production have also expanded dramatically. Each of these uses has the potential to either supplement or conflict with efforts to protect water quality. But for the most part, the trends are favorable. Within the PEC service area, more than 160,000 acres of prime farm soils and important farms have been placed into conservation easement. Most of those easements include specific provision for protection of riparian areas, including vegetated buffers of 35 to 100 feet along perennial streams and rivers.

Similarly, the interest in protecting scenic and historic values that are the basis for recreation and heritage tourism in the Piedmont region has facilitated the conservation of additional lands, including critical riparian, wetlands, and forested areas. Fully 325,000 acres of land in the PEC service area have been placed in conservation easement, most of which include limits on structures and roads, require forest management plans and include requirements for vegetated buffers of 35 to 100 feet along perennial streams and rivers.

PEC believes that their remains potential to expand participation in voluntary programs. Consistent administration, expanded collaboration with local and non-profit agencies to increase landowner education and technical assistance, and expanded funding of a variety of federal, state, and local programs all will help achieve the ambitious goals set out by the Chesapeake Bay TMDL.

Response

The Chesapeake Bay Program partnership and the agricultural community, have made significant past progress towards addressing the loss of nutrients and sediments to the tidal Chesapeake Bay. The agriculture and point source sectors, including municipal waste water treatment plants, have achieved the majority of the pollution reductions to date. Another important point source sector where much more progress needs to occur is pollution from urban areas. As you may know agriculture represents the largest managed land use within the Chesapeake Bay watershed, as well as the largest single source of nutrients and sediment entering the Bay.

Consequently, the Bay states are seeking additional nutrient and sediment reductions from the agricultural sector to assist with achieving the water quality requirements of the Chesapeake Bay TMDL to be released by December 31, 2010 through their supporting Watershed Implementation Plans (WIPs). A portion of this continued reliance by the Bay states to achieve future nutrient and sediment reductions is based on developing more stringent nutrient management plans and innovative technical practices, new policies and regulations that reduce nutrient runoff and improving the tracking and reporting of both cost-shared and

non-cost shared agricultural practices to more clearly document implementation of conservation practices by the agricultural community.

Comment ID 0587.1.001.007

Author Name: Watts George

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

EPA's continued insistence on the development of more alternative use facilities and technologies fails to recognize effective BMPs such as the organic fertilizer plant in Sussex County, DE. This facility produces organic fertilizer from poultry litter generated within the Chesapeake Bay watershed. Perdue offers the service of removing poultry litter from grow out houses and processing this litter to produce an organic fertilizer. This service is offered, free of charge, to any poultry farmer that operates within the Delmarva Peninsula. Since 2001, Perdue AgriRecycle has handled approximately 694,000 tons of raw litter. 325,506 tons of finished product has been marketed and shipped out of the plant with roughly 50 percent being shipped outside of the Chesapeake Bay watershed. EPA's efforts could be better spent on helping with transportation costs of the finished Perdue AgriRecycle products than constantly calling for the development of high priced, complex, on-the-farm or centralized alternative use facilities. Money provided for government grants to research new technologies and the grants/loans available to farmers to install and operate such systems would be more efficiently used by providing transportation assistance to the finished products from the Perdue AgriRecycle plant.

Response

EPA is fully aware of many of the advances that the poultry industry has helped support as part of the nutrient management planning process throughout the Chesapeake Bay watershed. We often have had meetings and discussions with the Delmarva Poultry Industry and the Virginia Poultry Industry and have appreciated the opportunity to share developing technologies and other on farm practices.

Nutrient management plans as you know represents all of the important technical components that address improvements to water quality. Some of the newer technical practices that have been supported by USDA's Natural Resources Conservation Service can also address air quality concerns in minimizing the transfer of nitrogen from poultry houses.

Over the past several months the Chesapeake Bay program has been presented with a number of new practices and have been asked to accept them to be included in the Bay model crediting nutrient reductions. Some have been accepted on an interim basis while others were rejected based on not have water quality documentation and related nutrient efficiency data. EPA has suggested to State agricultural agencies and other agriculture organizations to plan to undertake the appropriate levels of research on management practices that either are being implemented or are planned to be implemented as EPA would look forward to working with these agencies and organizations to achieve a greater number of practices that ultimately be part of the Chesapeake Bay model.

EPA looks forward to continuing to having discussions with the poultry industry and appreciates the support you have provided.

Comment ID 0607.1.001.008

Author Name: Bauhan Hobey

Organization: Virginia Poultry Federation (VPF)

Recognizing Successful State Programs

Rather than exceed the limits of its regulatory authority, EPA should recognize the efficacy of state programs. For example, the Virginia Poultry Waste Management Act and regulations are equally and in some cases more efficacious for water quality protection than federal CAFO permits. Requiring more farmers to be covered under federal CAFO permits only burdens farmers with more paperwork and does nothing for water quality.

Conclusion

Virginia has identified some priority agricultural BMPs and directed cost-share and other incentives toward their adoption. Rather than new regulatory mandates, the most good can be achieved through consistent and reliable cost-share funding and technical assistance through local conservation agencies. We ask EPA to reconsider its perilous course and allow states to chart a path forward that balances the universally shared desire to improve the condition of the Bay while preserving state prerogatives and avoiding detriment to agriculture and Virginia's economy generally.

Response

EPA is fully aware of many of the advances that the poultry industry has helped support as part of the nutrient management planning process throughout the Chesapeake Bay watershed. We often have had meetings and discussions with the Delmarva Poultry Industry and the Virginia Poultry Industry and have appreciated the opportunity to share developing technologies and other on farm practices.

Nutrient management plans as you know represents all of the important technical components that address improvements to water quality. Some of the newer technical practices that have been supported by USDA's Natural Resources Conservation Service can also address air quality concerns in minimizing the transfer of nitrogen from poultry houses.

Over the past several months the Chesapeake Bay program has been presented with a number of new practices and have been asked to accept them to be included in the Bay model crediting nutrient reductions. Some have been accepted on an interim basis while others were rejected based on not have water quality documentation and related nutrient efficiency data. EPA has suggested to State agricultural agencies and other agriculture organizations to plan to undertake the appropriate levels of research on management practices that either are being implemented or are planned to be implemented as EPA would look forward to working with these agencies and organizations to achieve a greater number of practices that ultimately be part of the Chesapeake Bay model.

EPA looks forward to continuing to having discussions with the poultry industry and appreciates the support you have provided. After several decades of efforts to restore the Bay, it still remains significantly impaired. So more of the same is not acceptable and innovative and aggressive new efforts are necessary to demonstrate that the source sectors such as the poultry industry will take the

necessary steps to restore the Bay.

Comment ID 0614.1.001.012

Author Name: Street William

Organization: James River Association (JRA)

Agriculture - While the allocation for agriculture in the Draft WIP is appropriate and the projected implementation levels for input deck BMP's are reasonable, the plan lacks sufficient detail for the programs and policies that will be proposed in order to achieve them. The Draft WIP acknowledges that additional incentives and requirements/other mechanisms will be needed to meet the projected implementation levels but does not offer any specifics of what they will be. A number of policies and even proposed legislation were circulated and discussed with members of the Stakeholder Advisory Group, of which JRA was a member. However, none of the program delivery mechanisms was described sufficiently in the Draft WIP. In order to provide reasonable assurance that the projected implementation levels will be achieved, the final WIP must provide greater detail for the delivery mechanisms.

Members of Virginia's agricultural community have suggested an approach that would provide flexibility to farmers through the use of a conservation plan. Such an approach has the benefits of allowing farmers to select the practices the best fit their operation, thereby gaining greater buy-in from the farmer and the agricultural community as a whole. However, in order for this approach to be successful and provide reasonable assurance, it must include the following elements:

- A specific methodology for the conservation plan that ensures a comprehensive assessment of the farm operation
- A performance standard for the conservation plan that can be tied to needed nutrient and sediment pollution reductions. (This will also facilitate nutrient trading by establishing a baseline beyond which pollution reductions could become nutrient credits.)
- Clear accounting of BMP's implemented both prior to the plan and on an on-going basis
- Verification of practice implementation and function over time
- Accountability for lack of implementation.

Response

EPA has articulated its expectations for what level of detail should be included in the Watershed Implementation Plans through several memoranda to the states. Specifically, in the November 9, 2009 memorandum to the states, EPA called for specific details on how key strategies will be achieved in the WIPs including how funding and technical resources will be garnered to support the activity, how producers will be motivated/incentivized to reach the implementation levels, and timeframes for when implementation levels and reduction targets will be achieved. This level of detail is necessary to build EPA's reasonable assurance that agricultural reduction targets will be met. Reference: http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/tmdl_implementation_letter_110409.pdf.

Comment ID 0681.1.001.008

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

The EPA backstop allocation for the James River does not call for any reduction in nitrogen loads within the agriculture sector from 2009 progress. For the other VA basins, the backstop calls for decreased allocations from 2009, ranging from 18 to 39% among the basins.

Recommendation: Set allocations that establish reductions for the agricultural sector.

Response

Please see response to comment 0067.1.001.009

Comment ID 0712-cp.001.001

Author Name: Ozkum Kent

Organization: Whitmore Farm

The attached [Comment Letter contains additional information in the form of an attachment. See original comment letter 0712.1] photo illustrates why you need to make BMPs for nonpoint sources enforceable. I took the attached photo this morning. This farmer farms several hundred acres yet he didn't want to fence off a narrow strip of land along an ephemeral stream. This is 2010 and there are still farmers that don't keep their cows out of the creek. The ephemeral stream in the picture feeds into Tom's Creek which is exceeding its water quality standards for nutrients and sediments. There are countless examples of farmers not implementing BMPs in my county. All visible from the road. Enforcement officials wouldn't even have to get out of their car to find these polluters! Voluntary programs are not working.

I am a farmer and I support enforceable BMPs for nonpoint sources.

[See original comment for attached photo]

Response

Please see response to comment 0648-cp.001.002

Comment ID 0746.1.001.023

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Assumptions Made in the Draft TMDL With Respect to Agricultural Loadings and What Constitutes Achievable Further Nutrient Reductions Are Arbitrary and Capricious and Must Be Changed.

A. The Draft TMDL's Overall Agricultural-related Allocation Will Drive Many Small and Medium Size Farms Out of Business

In the judgment of some of New York's leading agricultural experts convened by the USC, the only possible way to meet the draft TMDL's identified allotment would be if 50% of the farms within the watershed ceased operation [FN39] and the current inventory of farm raised animals (mainly cows) was reduced by 50%.

In general, the Coalition defers to the more detailed analyses of the agricultural-related issues it understands are being made by both the NYSDEC and the USC. However, it believes that some of these issues need to be highlighted here as they underscore why our Coalition, whose members represents most of the New York identified N/P/Sediment sources has come together to demand additional changes to the Draft TMDL before it is finalized.

[FN39] USC Factsheet "Chesapeake Bay Program TMDL Allocations in NY".

Response

EPA has received numerous comments that the nutrient allocations to NY are arbitrary and capricious. While the comments and reasons why the commenter believes the allocation to NY was unfair, this response provides EPA reasoning why the allocation to NY is appropriate.

EPA led a dialogue with all watershed jurisdictions, including NY, for over 2 years on the approach that should be used to allocate loadings to all states. While numerous methods were considered, EPA could not arrive at a consensus methodology for all states. The methodology used did enjoy the most agreement of any methodology considered among the jurisdictions.

The methodology used was, in part, based on the loadings expected under current land use and design flows from WWTP facilities. Current land use and design flow of WWTPs is a common approach used in developing TMDLs, including New York. Of the thousands of TMDLs developed in the Bay watershed, EPA is aware of only a few TMDLs that were based on past land use. The reason for this approach is straightforward. That is, in establishing a TMDL, one allocates to various sources contributing to the problem. When developing an allocation approach it stands to reason that the approach should consider the existence of those sources. So to suggest an approach that 'pretends' that the population and land use is different than the existing levels is inappropriate in EPA's opinion. Consistency with other TMDL practices is one of the reasons why the Bay partner states supported the method for allocating loads to the states that include using existing land use and design flows for WWTPs.

At an October 29, 2009 meeting among all states Principals' Staff Committee members, including New York, the proposed method

was accepted by all states except New York. New York abstained from an opinion during that meeting. Subsequent to that meeting New York and West Virginia expressed their disagreement with the method, citing various reasons.

Having no other method by which to allocate loads among the various jurisdictions, EPA used the method, with two significant exceptions, that gained widespread agreement among the states for the target loadings for nitrogen and phosphorus when these loads were provided to the states in a letter of July 1, 2010. Those exceptions were that EPA provided additional loading to both West Virginia and New York above that loading which those states would have received using the allocation methodology. More specifically, EPA ‘bumped’ the West Virginia allocation by 200,000 pounds per year of phosphorus and the New York allocation by 750,000 pounds per year of Nitrogen. This increase was intended to address the concerns raised but not limited to:

--New York delivers cleaner water to the bay than other states.

--New York is losing in population and farming operations over the years while other states are increasing population

--New York’s load is attenuated when being ‘processed’ through the Susquehanna River on its way to the bay and therefore any reductions in load have less beneficial impact on the Bay.

Some of the comments cited statistics on the low loadings allocated to New York. While these statistics are helpful the more relevant statistics are the amount of reductions expected of New York.

In that regard a few statistics may be helpful:

--On a pound for pound basis, New York nutrient loads have a moderate impact on reducing dissolved oxygen in the bay, falling about in the middle of the various states and basins within the watershed.

--While New York has a moderate impact on the Bay, because of the ‘bump’ in nitrogen allocation, the New York nitrogen allocation represents the lowest percent of controllable load of any jurisdiction in the watershed. Controllable load was considered by the Bay partners to be the best metric of load by which to make allocations decisions to the states.

--The ‘bump’ in nitrogen allocation for New York represents a 25% drop in the loading reduction needed in New York.

--The allocation for New York represents the second lowest pounds per acre reduction of all states (and the district) in the Bay watershed for both phosphorus and nitrogen.

--As of 2009, New York lags far behind all other states (and the district) in the bay watershed in upgrading their wastewater treatment plants to control nitrogen and phosphorous.

--The 2009 loading of nitrogen delivered to the Bay from New York is greater than the delivered loading from West Virginia, Delaware, and the District of Columbia and greater than the delivered load of any two of those jurisdictions combined.

--The 2009 loading of phosphorous delivered to the Bay from New York is similar to the delivered loading from West Virginia, and greater than the combined phosphorous loading from Delaware and the District of Columbia.

So the point remains that to restore the Chesapeake Bay, all jurisdictions and all sectors will need to achieve reductions of nitrogen and phosphorous. EPA used its discretion, based on extensive input from the Bay partners, to develop a rational science-based methodology to divide that allowable loading among the bay jurisdictions. To address the concerns raised by the headwater states of New York and West Virginia, EPA provided additional loadings to those states.

On the matter of EPA backstop allocations in the draft TMDL, please see response to comment # 0067.1.001.009.

Comment ID 0746.1.001.027

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Non-Point Source Agriculture Has, and Will Continue To, Reduced Its Nutrient Loads In Excess of the other Bay States

In addition to the Point Source-related nutrient reductions discussed above, much work has also been done in New York to reduce nutrient and sediment-related runoff from agriculture NPS within the Bay Watershed. Under the umbrella of the USC's Agricultural Team, which includes partners from NY-NRCS, DEC, Ag and Markets, major universities and all 16 New York County Soil and Water Conservation Districts (which are Coalition members) within the Bay Watershed [FN40] promote several programs that are intended to reduce agricultural related nutrients and sediments from entering the surface waters. These programs include:

- The New York Agricultural Environmental Management Program (AEM);
- Voluntary, incentive-based program in existence since 1996
- Progressive planning process to implement BMPs on farms consistent with the resources of each individual farm:
 - The 5-Tiered AEM process includes an inventory and assessment of environmental risk, conservation planning, implementation of BMPs according to NRCS standards, and evaluation of implemented BMPs to ensure on-going effectiveness.
- Watershed-based but locally lead and implemented
- Reflects local financial and technical needs
- Technical assistance is provided by local Soil and Water Conservation Districts, NRCS, Cornell Cooperative Extension, Certified Planners, and Professional Engineers
- Funding for implementation of AEM generated plans through the Agricultural Nonpoint Source Abatement & Control Grant Program (AGNP) and USDA Farm Bill Programs which nationally provides millions of dollars annually in competitive grants to assist farmers in preventing water pollution from agricultural activities
- Support of "wall to wall" buffers through "Graze-NY" which provides farms with technical assistance to adopt prescribed grazing management systems that contribute to the financial, environmental and social well-being of local watersheds.
- Commitment to proper Herd Nutrient Management through rigorous conservation planner certification process, which is supported by
 - Performance-based Conservation Planner Certifications
 - Regular training for SWCDs (including their Board of Directors) and NY-NRCS employees,

o Training to, and helping, farmers apply environmentally and agronomically-sound guidelines developed by Cornell University (New York's Land Grant College).

- Cornell University promotes resource efficient (nutrients, soil, water, fuel, etc.) farm management along with robust outreach, extension and applied research efforts.

[FN40] In addition, of their Pennsylvania counterparts Solid Water Conservation Districts are also members of USC.

Response

Please refer to comment 0080-cp.001.002

23.2 - ATMOSPHERIC DEPOSITION

Comment ID 0211.1.001.009

Author Name: McCarthy R.

Organization: Town of Erwin, New York

the EPA has failed to incorporate a sufficient system of checks and balances to ensure a significant reduction of airborne nutrients deposition originating from areas outside of the Chesapeake Bay watershed,

Response

Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30%. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NO_x, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NO_x SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Comment ID 0230.1.001.052

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA's Failure to More Aggressively Target Air Deposition Is Unreasonable

CBPO has estimated that atmospheric sources account for about one third of the nitrogen that reaches the Bay, and the majority of this load originates from outside the Chesapeake Bay watershed (EPA, 2010). CBPO has developed airshed model scenarios representing various levels of atmospheric load reduction. Given the magnitude of the load derived from atmospheric sources, it is critical that these sources bear a proportional operational and financial responsibility for load reduction, and other sectors not be negatively impacted due to lack of atmospheric load reductions. This may require the CBPO to model and pursue regulatory strategies that are beyond existing or proposed regulations, including atmospheric controls specifically targeted toward water quality protection.

EPA's Draft TMDL document states that "in determining the amount of air controls to be used as a basis for the air allocation, EPA relied on current laws and regulations under the Clean Air Act." While EPA is calling on states to go well beyond existing programs and regulations for other sectors, it is not applying the same standard to the air allocations for which it is responsible. The resulting allocation is only about 12% lower than 1985 levels, and does not reflect key opportunities of the 2020 maximum feasible scenario, additional ammonia reductions from agricultural practices, or new air regulations specifically focused on nutrient reduction. EPA is being complacent in aggressively chasing down additional reductions from this key source sector. EPA has lackadaisically accepted what other programs are planning for air pollution reductions as good enough. In addition, EPA's decision to require Virginians to clean up nutrients that are deposited on our land from states outside the Watershed begs for a better approach to source reductions.

Response

Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30%. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NO_x, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased

in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NO_x SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Of the atmospheric NO_x emitted from Virginia, only about 7% is deposited back into Virginia's portion of the Chesapeake. The rest of Virginia's emissions are deposited mostly in downwind States including other States of the Chesapeake watershed. Overall, only about 50% of the NO_x emitted in the Chesapeake watershed returns to the watershed. In atmospheric deposition we are all upwind emitters of load, and downwind receivers of atmospheric deposition. That's why controls of atmospheric deposition loads need to be from national programs, just as they are in the Chesapeake TMDL accounting of atmospheric deposition loads.

Comment ID 0265.1.001.015

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

Also, EPA has failed to aggressively target air deposition in the TMDL for greater load reductions. Atmospheric sources are estimated to account for about one-third of the nitrogen loading to the Bay, yet the TMDL simply accepts existing and planned air regulatory programs as an appropriate level of effort to reduce nitrogen loads from air deposition, much of which originates from outside of the Bay watershed. An aggressive, targeted approach to this large source sector would free-up allocations for the urban source sector, making it more likely that this sector's allocations could be attained at some point in the future.

Response

The Chesapeake TMDL establishes allocations for atmospheric nitrogen loads, which includes NO_x emissions from all power plants, industry, mobile sources and others. NO_x is a precursor to ozone and a contributor to PM_{2.5} particulates and are controlled by the Clean Air Act (CAA) but also are involved with nitrogen deposition in the Chesapeake watershed and ultimately, the delivery to the Chesapeake of nitrogen loads. Because the CAA ozone and PM_{2.5} standards are fixed air quality standards that must be met, and since the standards are out of attainment in many parts of the watershed, the SIP plans created by the States to control NO_x emissions are a significant control for Chesapeake nitrogen loads.

Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30% due to Federal and State programs of air quality management. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NOx, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NOx SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Comment ID 0272.2.001.016

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

EPA's Draft TMDL is lacking with regard to air deposition, and EPA is being complacent in aggressively chasing down additional reductions from this key source sector. EPA has lackadaisically accepted what other programs are planning for air pollution reductions as good enough. In addition, EPA's decision to require Maryland's citizens to clean up nutrients that are deposited on our land from states outside the Watershed begs for a better approach to source reductions.

Response

Over the last 30 years reduction in NOx deposition in the Chesapeake watershed have declined by more than 30%. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NOx, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NOx SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.
Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Comment ID 0288.1.001.033

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

EPA's Failure to More Aggressively Target Air Deposition Is Unreasonable

CBPO has estimated that atmospheric sources account for about one third of the nitrogen that reaches the Bay, and the majority of this load originates from outside the Chesapeake Bay watershed (EPA, 2010). CBPO has developed airshed model scenarios representing various levels of atmospheric load reduction. Given the magnitude of the load derived from atmospheric sources, it is critical that these sources bear a proportional operational and financial responsibility for load reduction, and other sectors not be negatively impacted due to lack of atmospheric load reductions. This may require the CBPO to model and pursue regulatory strategies that are beyond existing or proposed regulations, including atmospheric controls specifically targeted toward water quality protection.

EPA's Draft TMDL document states that "in determining the amount of air controls to be used as a basis for the air allocation, EPA relied on current laws and regulations under the Clean Air Act." While EPA is calling on states to go well beyond existing programs and regulations for other sectors, it is not applying the same standard to the air allocations for which it is responsible. The resulting allocation is only about 12% lower than 1985 levels, and does not reflect key opportunities of the 2020 maximum feasible scenario, additional ammonia reductions from agricultural practices, or new air regulations specifically focused on nutrient reduction. EPA is being complacent in aggressively chasing down additional reductions from this key source sector. EPA has lackadaisically accepted what other programs are planning for air pollution reductions as good enough. In addition, EPA's decision to require Virginians to clean up nutrients that are deposited on our land from states outside the Watershed begs for a better approach to source reductions.

Response

In atmospheric deposition we are all upwind emitters of load, and downwind receivers of atmospheric deposition. That's why controls of atmospheric deposition loads need to be from national programs, as they are in the Chesapeake TMDL accounting of atmospheric deposition loads.

Over the last 30 years reduction in NOx deposition in the Chesapeake watershed have declined by more than 30%. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011. The rate of reduction in atmospheric deposition is one of the highest of all the different source sectors in the Chesapeake watershed and comparable to the rate of nitrogen reduction from point sources.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NO_x, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NO_x SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Comment ID 0293.1.001.025

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA's Failure to Aggressively Target Air Deposition Is Unreasonable

CBPO has estimated that atmospheric sources account for about one third of the nitrogen that reaches the Bay, and the majority of this load originates from outside the Chesapeake Bay watershed. CBPO has developed airshed model scenarios representing various levels of atmospheric load reduction. Given the magnitude of the load derived from atmospheric sources, it is critical that these sources bear a proportional operational and financial responsibility for load reduction, and other sectors not be negatively impacted due to lack of atmospheric load reductions. This may require the CBPO to model and pursue regulatory strategies that are beyond existing or proposed regulations, including atmospheric controls specifically targeted toward water quality protection.

EPA's Draft TMDL is lacking with regard to air deposition, and EPA is being complacent in aggressively chasing down additional reductions from this key source sector. EPA has lackadaisically accepted what other programs are planning for air pollution reductions as good enough. In addition, EPA's decision to require Virginians to clean up nutrients that are deposited on our land from states outside the Watershed begs for a better approach to source reductions.

Response

In atmospheric deposition we are all upwind emitters of load, and downwind receivers of atmospheric deposition. That's why controls of atmospheric deposition loads need to be from national programs, as they are in the Chesapeake TMDL accounting of atmospheric deposition loads.

Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30%. Further

reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011. The rate of nitrogen reduction from atmospheric deposition is one of the highest of all the different source sectors in the Chesapeake watershed and comparable to the rate of nitrogen reduction from point sources.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NO_x, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NO_x SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Comment ID 0314.001.004

Author Name: Santulli Thomas

Organization: Southern Tier Central Regional Planning and Development Board (STCRPDB)

- Atmospheric nitrogen from other states : It is estimated that approximately 20-25 percent of the total nitrogen delivered to the Bay from New York originates from airborne pollution from outside of the state.

The allocations assigned to New York State in the Draft TMDL fail to incorporate these fairness principles . In addition to being inequitable, the proposed allocations are likely unachievable. Attempting to meet these goals would require significant and costly implementation measures that could jeopardize the economic well-being of communities within the watershed. We thus request that the proposed allocations be replaced with reasonable allocations that are both equitable and achievable.

Response

Of the atmospheric NO_x emitted from New York, only about 1% is deposited back into New York's portion of the Chesapeake. The rest of New York's emissions are deposited in mostly in downwind States including other States of the Chesapeake watershed. Overall only about 50% of the NO_x emitted in the Chesapeake watershed returns to the watershed. In atmospheric deposition we are all upwind emitters of load, and downwind receivers of atmospheric deposition. That's why controls of atmospheric deposition loads need to be from national programs, just as they are in the Chesapeake TMDI accounting of atmospheric deposition loads.

Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30%. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NO_x, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NO_x SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

Comment ID 0377-cp.001.004

Author Name: Martin Larry

Organization: Sustainable Community Initiatives

It is appropriate that EPA commits to reducing air deposition of nitrogen to the tidal waters of the Chesapeake Bay to 15.7 million pounds per year. The reductions are an important component of restoring the Bay's health.

Response

Thank you

Comment ID 0410.1.001.017

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

The TMDL states that 25-28% of total nitrogen loading is derived from areas outside the Chesapeake Bay Watershed. Are phosphorus and sediment deposited by means of atmospheric deposition as well? If so, what are the loads deposited for these pollutants?

Response

Response – The estimated atmospheric deposition loads of nitrogen and phosphorus can be found in Section 5 of the Phase 5.3 Watershed Model documentation:

ftp://ftp.chesapeakebay.net/Modeling/P5Documentation/SECTION_5.pdf

Atmospheric deposition loads of phosphorus are low in the Phase 5.3 and are only the aeolian sources of phosphorus deposited to water surfaces. Atmospheric deposition loads of sediment also occur, but are inconsequentially small and are not included in the CBP simulation as documented in Section 5 above.

Comment ID 0436.1.001.015

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

Also, EPA has failed to aggressively target air deposition in the TMDL for greater load reductions. Atmospheric sources are estimated to account for about one-third of the nitrogen loading to the Bay, yet the TMDL simply accepts existing and planned air regulatory programs as an appropriate level of effort to reduce nitrogen loads from air deposition, much of which originates from outside of the Bay watershed. An aggressive, targeted approach to this large source sector would free-up allocations for the urban source sector, making it more likely that this sector's allocations could be attained at some point in the future.

Response

Response – please see response to 0230.1.001.052.

Comment ID 0444.1.001.002

Author Name: Allen Paul

Organization: Constellation Energy

We have been following the development of the Draft TMDL on our own and as members of the Utility Water Act Group (UWAG) [See comment EPA-R03-OW-2010-0736-0548] and the Edison Electric Institute (EEI) [See comment EPA-R03-OW-2010-0481]. UWAG will be submitting detailed comments on the Draft TMDL which Constellation strongly endorses and urges EPA to consider. Both EEI and UWAG are members of the Federal Water Quality Coalition (FWQC). The FWQC will also be submitting comments and we urge EPA to take those comments into consideration as well.

EPA correctly modeled nitrogen inputs from atmospheric deposition as non-point sources and established load reductions to be achieved based on Clean Air Act regulations by EPA and the states through 2020 (letter from Shawn M. Garvin to Shari T. Wilson, dated July 1, 2010). This methodology is appropriate because EPA has no authority under the Clean Water Act to regulate air emissions. Constellation encourages EPA to maintain this approach for air deposition sources in Phase II and Phase III of the TMDL.

Response

Thank you for your comment of support for the Chesapeake Bay Program's "correctly modeled nitrogen inputs from atmospheric deposition as non-point sources and established load reductions to be achieved based on Clean Air Act regulations by EPA and the states through 2020".

Comment ID 0496.1.001.012

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

Also, EPA has failed to aggressively target air deposition in the TMDL for greater load reductions. Atmospheric sources are estimated to account for about one-third of the nitrogen loading to the Bay, yet the TMDL simply accepts existing and planned air regulatory programs as an appropriate level of effort to reduce nitrogen loads from air deposition, much of which originates from outside of the Bay watershed. An aggressive, targeted approach to this large source sector would free-up allocations for the urban source sector, making it more likely that this sector's allocations could be attained at some point in the future.

Response

EPA disagrees that air deposition has not been appropriately targeted in the TMDL. Please see response Comment number 0230.1.001.052.

Comment ID 0502.1.001.004

Author Name: Frank Stephen

Organization: RRI Energy

Comment 2. Air Deposition to Water.

The draft Bay TMDL includes reductions associated with deposition due to the installation of deNO_x technologies throughout the watershed. However, a portion of the reductions in air deposition will return to the Bay from these deNO_x technologies in the form of increases in ammonia nitrogen associated with stormwater runoff and in landfill leachate from fly ash handling and disposal.

As a result, WLAs or reserve WLAs are necessary because these deNOx technologies use of ammonia, which can have a balance-of-plant impact on fly ash and associated wastewater discharges. Ammonia tends to adsorb on fly ash within the flue gas train as both free ammonia and ammonium-sulfate compounds. This ammonia can then desorb during subsequent transport, disposal, or use of the fly ash.

In cases where fly ash is placed in a pond, the ammonia may desorb into the pond water. Landfilling of ammoniated fly ash may also cause leachate or runoff waters to have increased concentrations of ammonia, again presenting another TN load.

Therefore, we suggest that a portion of the air deposition reductions in TN loading to the Bay be reserved and provided to the same facilities that have or will be installing these deNOx control devices.

Response

Response - Associated with some NOx emission control technologies are ammonia emissions, called “ammonia slip emissions” which occur in catalyzed reactions of NOx with ammonia (NH₄⁺) and result in emissions of harmless N₂ diatomic gas and water. The ancillary ammonia slip emissions associated with these emission controls are included in the CBP model simulations. Loads from the proper disposal of fly ash in permitted landfills or ponds are considered to be negligible and are absent from the CBP calculations.

Comment ID 0516.1.001.017

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

20) The EPA should act to better control air emissions by better regulating and enforcing emission controls from all sources and include similar provisions for each state.

Response

The Clean Air Act (CAA) ozone and PM_{2.5} standards are fixed air quality standards that must be met. In many parts of the Chesapeake watershed, the State Implementation Plans (SIP plans) created by the states to control NOx emissions in effect already have offsets to account for growth as the CAA cap cannot be exceeded. The WIPs under the authority of the Clean Water Act are unable to require these offsets.

Comment ID 0548.1.001.002

Author Name: Smith Brooks

Organization: Utility Water Act Group

1. UWAG supports EPA's approach to air emission sources.

The Bay TMDL air allocation reflects EPA's modeled nitrogen deposition to the Bay, taking into account the reduction in air emissions expected from sources regulated under existing or planned federal Clean Air Act programs. See Bay TMDL at 5-20. UWAG strongly supports EPA's inclusion of air deposition within the nonpoint source load allocation, consistent with existing EPA regulations and practice. Without taking a position on the need for air-side reductions, UWAG also strongly supports EPA's decision to defer any such reductions to authorized programs and rulemakings under the federal Clean Air Act.

UWAG is aware that other commenters have asked EPA to more aggressively target air deposition. However, EPA has no authority to do so under the Clean Water Act.

In other TMDL proceedings, UWAG has expressed concern about EPA regions and states attempting to use the Clean Water Act to force air-side reductions. See, e.g., UWAG's comments on the Northeast Regional Mercury TMDL. Any such attempt would be unlawful, because the Clean Water Act does not confer any authority on EPA regions or states to regulate air emissions sources. If those sources contribute to a water impairment, then they should, and must, be accounted for as nonpoint sources in the load allocation. But that is where the statutory authority ends. There is no federally enforceable mechanism (other than grant funding) to implement or achieve the load allocation.

Response

Response – Thank you for your comment of support of the atmospheric deposition approach taken in the Chesapeake TMDL. The Chesapeake TMDL relies on the national programs of the Clean Air Act and the associated Federal and State laws and regulations. Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30% due to Federal and State programs of air quality management. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

Comment ID 0590.1.001.011

Author Name: Chavez Jennifer

Organization: Earthjustice et al.

9. Air Deposition: EPA assumes a 15.7 million pound nitrogen deposition cap based on assumed national EPA rulemakings between now and 2020. TMDL at 6-32. A number of these rules have yet to be adopted, however, and some might be changed before 2020. If EPA is going to allow the states to assume this limit on air deposition, the agency must adopt enforceable mechanisms to assure that they are in fact achieved, or that states are required to cut their load allocations by the amount of any shortfall in the hoped for air deposition reductions.

Response

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NOx, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NOx SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

These reductions are fully backed by Federal and State law and regulations. Over the last 30 years reduction in NOx deposition in the Chesapeake watershed have declined by more than 30% due to Federal and State programs of air quality management. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

Comment ID 0727.001.003

Author Name: Thigpen Janet

Organization: Steuben County Environmental Management Council

Atmospheric nitrogen sources: It is estimated that approximately 20-25 percent of the total nitrogen delivered to the Bay from New York originates from airborne pollution from outside of the state . Since New York has no control over these sources, they should not be included in New York's load allocation . The Chesapeake Bay Airshed Model should be used to establish nitrogen allocations for the upwind states that contribute these airborne pollutants.

Response

Please see response to Comment number 0314.001.004

Comment ID 0746.1.001.015

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

1. Air Deposition

The TMDL should have assumed that more reductions from air deposition will have been achieved through various Federal Clean Air Act regulatory programs. As NYSDEC pointed out in its Draft NY WIP, while air deposition accounts for over 34% of the nitrogen flowing to the Bay, the TMDL allocations only call for a 15.7 MPY reduction due to federal CAA regulatory requirements [FN25]. NYSDEC in its draft WIP has added in another 1,00,000 to 2,000,000 pounds per year reduction in atmospheric-related air deposition within New York related to NYSDEC regulatory programs. We believe the Draft TMDL's assumed reductions are significantly too low. NYSDEC's evaluations have indicated that just the federal nitrogen related air quality requirements that have already been put in place could lead to a 70% reduction from 2007 levels [FN26]. In addition, EPA has just received a petition from the Clean Air Administrators requesting that EPA promulgate even more NO_x related air regulations, in order to address nitrogen related water quality problems throughout the country [FN27]. Based on this, we believe that the final TMDL must increase the assumed load reduction stemming from required and anticipated CAA-related improvements in air quality. This increase should then be distributed to the Bay States in a fair and equitable manner.

[FN25] Draft TMDL at 6.4.1.

[FN26] New York Draft Phase I WIP at IV(A).

[FN27] The National Association of Clean Air Agencies, in a resolution adopted Oct. 19, 2010, asked EPA to draft and finalize rules for seven source categories that are responsible for the bulk of nitrogen oxides emissions, sulfur dioxide emissions, and mercury emissions. The petition is available at [http://op.bna.com/env.nsf/idijsun-8agsqy/\\$FileINACAAair.PDF](http://op.bna.com/env.nsf/idijsun-8agsqy/$FileINACAAair.PDF).

Response

The Chesapeake TMDL relies on the national programs of the Clean Air Act and the associated Federal and State laws and regulations. Over the last 30 years reduction in NO_x deposition in the Chesapeake watershed have declined by more than 30%. Further reductions in atmospheric deposition are expected from ongoing implementation of management practices to achieve the current air quality standards, as well as additional reductions that may be required by the new ozone standard to be set by July 2011.

The rate of nitrogen reduction from atmospheric deposition is one of the highest of all the different source sectors in the Chesapeake watershed and comparable to the rate of nitrogen reduction from point sources.

The air reductions assumed in the Chesapeake TMDL include emission reductions due to regulations implemented through the Clean Air Act authority to meet National Ambient Air Quality standards for criteria pollutants in 2020. These are:

On-Road mobile sources: For On-Road Light Duty Mobile Sources this includes Tier 2 vehicle emissions standards and the Gasoline Sulfur Program which affects SUV's pickups, and vans which are now subject to same national emission standards as cars.

On-Road Heavy Duty Diesel Rule – Tier 4: New emission standards on diesel engines starting with the 2010 model year for NO_x, plus some diesel engine retrofits.

Clean Air Non-Road Diesel Rule: Off-road diesel engine vehicle rule, commercial marine diesels, and locomotive diesels (phased

in by 2014) require controls on new engines.

Off-road large spark ignition engine rules affect recreational vehicles (marine and land based).

EGUs: CAIR second phase in place (in coordination with earlier NO_x SIP call); Regional Haze Rule and guidelines for Best Available retrofit Technology (BART) for reducing regional haze; Clean Air Mercury Rule (CAMR) all in place.

Non-EGUs: Solid Waste Rules (Hospital/Medical Waste Incinerator Regulations).

While additional atmospheric deposition reductions may be required in the future in national air programs for the primary air quality standard for human health or the secondary air quality standards for standard for environmental health, considerable progress has already been made in reducing Chesapeake atmospheric deposition loads.

As a point of clarification, the 15.7 million pound per year allocation for nitrogen atmospheric deposition is for deposition to the Chesapeake tidal waters only. Reductions in atmospheric deposition to the Chesapeake watershed are credited to the Bay States where the reductions occur through the WIP development process.

23.3 - FOREST LAND

Comment ID 0064-cp.001.003

Author Name: Hutchins Lawrence

Organization: Quail's Nest Industries

An issue for concern is that the TMDL and Pennsylvania's WIP currently equitably distribute the required load reductions among sector sources. But the majority of the forest sector load comes from natural forest acres, and is unable to be reduced through land-management activities (Some reductions can be achieved via additional federal and state clean air regulations). As a result, it is impossible for the forest sector to meet this current load reduction goal - even if all timber harvesting was eliminated in the state.

Response

Please see response to Comment 0184.1.001.005

Comment ID 0064-cp.001.005

Author Name: Hutchins Lawrence

Organization: Quail's Nest Industries

The load targets for forests must be reduced and redistributed to better reflect the realities of how forests contribute to emissions to the Bay.

Response

Please see response to Comment 0184.1.001.005

Comment ID 0323.1.001.002

Author Name: Wigley T.

Organization: National Council for Air and Stream Improvement, Inc. (NCASI)

5. Sustainable forest management provides incentives for landowners to retain forest land in forest cover.

Today the greatest threat to water quality impairment in the Chesapeake Bay Watershed results from deforestation that results from the conversion of forests to non-forest uses that produce a higher economic value. The families, businesses and individuals that own nearly 60% of our nation's forests depend on the returns they get from the products their forests produce to make additional investments in sound, long-term forest management. When existing markets for their products are strong, or when new markets like energy emerge, they provide forest owners the means to keep their land forested by keeping their forests economically competitive with other uses. However, when regulatory costs are imposed, this reduces a landowner's ability to maintain the land in forest cover and at some point will tip the balance in favor of non-forest uses.

Response

Thank you for your comments. The Environmental Protection Agency supports the use of sustainable forest management.

Comment ID 0380.1.001.002

Author Name: Lyskava Paul

Organization: Pennsylvania Forest Products Association

1. Forest Sector Allocations - The Draft TMDL provides the states with allocations for various sectors, including forests. As we understand, the required reduction targets for sectors are proportional to the base load allocation. In the case of the forest sector, this allocation and proportional load reduction is problematic. Pennsylvania forest sector has been identified as the source of 20 percent of Pennsylvania's nitrogen allocation, 14 percent of the phosphorus allocation and 18 percent of the sediment allocation. Only a small portion of this is attributed to harvesting activities subject to land management practices. The vast majority of the allocation is attributed to air deposition on non-harvested forests. While the loading rate for non-harvested forests is the lowest of any land-use category in the Bay model, the sheer number of forested acres in Pennsylvania's portion of the Bay watershed results in a significant load. We feel that the presentation of this information in the TMDL and subsequent state WIP leads users and the public to incorrectly conclude that forest management is a significant source of nutrient and sediment pollution.

The ability for Pennsylvania's WIP to implement a reduction of the emissions from this sector is extremely limited. Pennsylvania must rely upon implementation of air reduction emission from EPA and other entities outside of its control to address air quality improvements from upwind states. As such, it is doubtful that the required proportionate reductions from the forest sector are even possible. Additionally, we believe that the inability to achieve the necessary reductions from non-harvested forests forces a greater burden of reductions on harvested forest activities and other sectors. In short, forests should be a desirable land-use, but in the Draft TMDL, they are an impediment to a state's successfully implementing its WIP. EPA should address this issue, preferably by revising the TMDL to relieve the states of their responsibility of reducing emissions caused by air deposition on non-harvested forests. Otherwise, the TMDL should redistribute forest allocations to other sectors within states to better reflect the realities of how forests contribute to emissions to the Bay.

Response

Please see response to comment 0228.1.001.002 and Section 8 of the final TMDL

Comment ID 0514.1.001.008

Author Name: Schwartz Jerry

Organization: American Forest & Paper Association (AF&PA) and National Alliance of Forest Owners (NAFO)

There have been numerous studies in the Chesapeake Bay Region documenting BMP effectiveness, many of which do not appear to have been considered by EPA. There have been numerous studies in the Chesapeake Bay Region documenting BMP effectiveness, many of which do not appear to have been considered by EPA. A brief synopsis of key findings from these studies is as follows.

A watershed study conducted in central Pennsylvania suggested that the BMPs were effective in controlling non-point source pollution from a 44.5-hectare commercial clearcut (Lynch et al. 1985). Among the BMPs used were: protective buffer strips; a prohibition on skidding over streams; supervision of logging by a qualified forester; division of timber sales into blocks with cutting restricted to one block at a time; no disposal of tops or slash within 8 m of streams; proper location of haul roads, skid trails and log landings; retirement of skid trails, haul roads and culverts after logging; posting of a performance bond prior to logging. Slight increases in stream temperature, turbidity, and nitrate and potassium concentrations were observed, but these increases did not exceed drinking water standards. The authors concluded that the slight increases in temperature and nutrients were possibly temporarily beneficial to the aquatic ecosystem.

Passhaus et al. (2003) used macroinvertebrate sampling to monitor ephemeral stream water quality in partially harvested and reference watersheds in the Catskill Mountain Region of southern New York. A variety of diversity indices showed no evidence that partial harvest using BMPs negatively impacted aquatic communities or water quality. Within the reference sites, the structure of the macroinvertebrate community varied greatly between years.

In New York, Schuler and Briggs (2000) found that implementation rates for 42 suggested BMPs were 78% for haul roads, 87% for landings, 59% for skid trails, 88% for equipment maintenance/operation, and 73% for buffer strips. Departures were common for BMPs concerned with draining water off haul roads and skid trails, and for stream

crossings; thus, the authors concluded that more attention must be devoted to those practices. BMPs were reported to be effective when they were applied correctly.

Wang et al. (2006) reported small changes in stream water chemistry following a partial harvest with BMPs in 2002 of a catchment in the Catskill Mountains of southern New York. Stream water chemistry concentrations increased significantly after harvest treatments and peak concentrations were reached 5 months or more after initiation of the harvest. Stream water chemistry returned to values similar to those of the preharvest period and to reference levels by early spring 2003. Nitrate concentrations, however, remained elevated above background levels for approximately 18 to 20 months after harvest.

In the Hubbard Brook Watershed of New Hampshire, Trimble and Sartz (1957) evaluated the performance of recommended buffer widths for protecting water quality for two situations. The authors concluded that, for municipal watersheds where minor impacts on water quality are not acceptable, a 50-ft buffer width on flat terrain would be adequate, and that width of the buffer should increase 4 ft for each 1-percent increase in slope between the road and stream. For general purpose situations where small or infrequent impacts on water quality can occasionally be tolerated, they concluded that a starting buffer width of 25-ft on level ground was effective and buffer widths should increase by 2-ft for each 1-percent increase in slope of the land between the road and stream.

In Frederick County, Maryland, MD DNR (2000) used a paired watershed design to monitor effectiveness of Maryland's BMPs for timber harvest operations. They found that total suspended solids, stream temperature, and benthic macroinvertebrate populations did not change significantly as a result of timber harvesting.

Martin et al. (2000) monitored stream water quality following clearcutting and progressive strip cutting in the Hubbard Brook Experimental Forest. Reduced transpiration and interception increased water yield while peak flows only increased moderately. Water yield and peak flow increases returned to normal levels within 4-6 years. Sediment yields increased during and after harvest but were maintained within normal ranges of reference streams. Increases in sediment yield and stream water nutrient levels returned to preharvest levels within 3-5 years due to rapidly growing vegetation and effective best management practices.

Martin et al. (1984) observed small differences in water chemistry between recently clearcut and reference watershed across a wide range of forest and soil types in New England. The amount of observed responses to clearcutting was of the same magnitude as natural variations among streams draining similar watersheds. They concluded that limiting clearcut sizes, utilizing patch and strip cutting, and installing streamside management zones all appeared to effectively reduce the magnitude of changes in stream water chemistry.

Wynn et al. (2000) evaluated the effects of clearcutting on water quality and the effectiveness of forestry BMPs in Westmoreland County, VA. One watershed was clearcut without BMPs, one watershed was clearcut with BMPs and a third watershed was left undisturbed as a control. Storm event concentrations and loadings of sediment, nitrogen, and phosphorus increased following clearcutting and site preparation when BMPs were not utilized. During the study period both the clearcut BMP watershed and the control watershed showed few changes in pollutant storm concentrations and loadings.

Response

Please see response to comment 0228.1.001.002

Comment ID 0633-cp.001.003

Author Name: Bertoni John

Organization: Wastewater Treatment Plant, Village of Endicott, New York

There are also uncontrollable factors contributing to the nutrient load From New York that are not being considered by the EPA. One being forest cover that is the cause of the majority of nutrient loading. Point source (wastewater plants) are a fraction of the loading source. In theory; if wastewater streams were eliminated completely from the streams and rivers flowing to the bay, the limit numbers reaching the bay recommended by the EPA could not be met.

Response

The states are responsible for allocating the tributary loads to the source sectors within their jurisdiction as part of the jurisdictions' Watershed Implementation Plan that will be used to inform the TMDL. A jurisdiction may choose to take action towards individual or more general sectors in achieving load reductions. Each jurisdiction has a unique set of practices they intend to use to meet water quality standards.

23.4 - SEPTICS

Comment ID 0228.1.001.019

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

3. Expand 5-Year On-Site Pump Out Requirement

Expand the 5-year on-site pump out requirement to the entire Chesapeake Bay Watershed (versus only those localities subject to the Chesapeake Bay Act). This will reduce loads from onsite septic users in a cost-effective manner with a high level of reasonable assurance.

Response

Expanding the 5-year On-Site Pump Out requirement would require action by Virginia's General Assembly. VA DEQ has requested the authority to expand its authority to the west side of the Bay.

Comment ID 0394.001.004

Author Name: Heavner Brad

Organization: Environment America et al.

There is no technical, scientific, or valid policy reason why each and every state in the watershed should not have submitted a WIP that achieves the proposed pollution reductions.

Response

EPA acknowledges the comment.

Comment ID 0501.1.001.004

Author Name: Stainman S.

Organization:

7. New septic systems in the coastal plain, if not the coastal zone, should include best available technology to reduce nutrient emissions. Areas of failing septic systems in the coastal zone should be promptly corrected.

Response

See response to Comment No. 0044.1.001.004

Comment ID 0614.1.001.015

Author Name: Street William

Organization: James River Association (JRA)

Septic - Similar to existing urban development, the pollution reductions proposed in the Draft WIP for septic systems are set at the absolute highest levels that are technically feasible. It is widely understood that implementation at this level is unrealistic and were set in order to force the use of the expanded nutrient trading program. Conversely, septic system allocations should be set at the 2009 loads and a requirement that any new or expanded system use advanced denitrification technology or purchase equivalent nutrient offsets

Response

The septic reduction efforts in the WIP were determined by the states. These requirements have been revised in the final WIP.

Comment ID 0681.1.001.011

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

Onsite/Septic The EPA backstop appears to set allocations for this sector at approximately 2009 levels in the James, Potomac and York basins; however, in the E. Shore and Rappahannock the allocations appear to reflect E3 levels.

Recommendation: The final VA WIP will reflect allocations that should be used in the TMDL for this sector.

Response

Please see response to comment 0067.1.001.009

23.5 - NON-REGULATED STORMWATER RUNOFF

Comment ID 0571.1.001.016

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

V The TMDL Lacks Sufficient Detail to Allow the Public to Fully Understand Requirements.

The TMDL is just one component of an array of new documents, guidance, WIPs and other state and local actions that will place new requirements on various stakeholders. Unfortunately, the complexity and interrelatedness of these efforts is not always apparent and it is not clear what will need to be done differently to reach compliance.

a. Methods to Comply with the TMDL are Not in the Proposal

Clearly, the TMDL will impose new requirements on communities and landowners, but from reading the proposal, it is not clear what all of those new obligations will be. EPA will allow only "EPA approved" BMPs to be used to meet the pollution reduction requirements under the rule. Other BMPs not approved by EPA's Goal Implementation Team (GIT) will not be credited for pollutant reductions under the TMDL. For home builders, there are numerous BMPs now being used in the Bay watershed to meet state stormwater permit requirements. EPA has selected a subset of those BMPs, primarily low-impact development (LID) devices we assume, for home builders to use to reduce their nitrogen, phosphorus and sediment discharges. However, EPA has not included in the TMDL package a list of the BMPs that are acceptable to meet the rule. Nor has the agency given a rationale for selecting the subset of BMPs, supplied the performance expectations for the BMPs selected, or supplied data to demonstrate the effectiveness of the BMPs in real world applications. Given the extreme nature of the "backstop allocations" that the agency has applied to the WIPs of five of the Bay states, NAHB is very interested in seeing the supporting data that justifies the backstop standards proposed. NAHB requests that EPA immediately post to its website the supporting documents for the BMPs that EPA

proposes for home builder's use in stormwater management control programs under the TMDL, and the supporting documents that demonstrate that the "backstop allocations" for urban stormwater programs in the state WIPs are achievable in practice, as well as any cost information supporting EPA's decisions regarding those BMPs.

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA clarifies that TMDL allocations, including proposed backstop allocations, are the loads that must be achieved in order to meet water quality objectives. While performances of various management practices have been considered in the decisions on how to feasibly split allocations amongst sectors, there is not a restrictive set of BMPs that practitioners are required to use. The TMDL does not include any specific implementation plan. EPA encourages practitioners to use innovative sets of management approaches that maximize performance, and will continue to update it's accounting systems to properly quantify the reductions those approaches can achieve.

Comment ID 0742.001.004

Author Name: Wells John

Organization: Town of Leesburg, Virginia

The Town of Leesburg has been responsibly developing within its corporate limits over the past three decades. The Town's development is in conformance to the current Town Code, Town Plan, Zoning Ordinance, Subdivision and Land Development Regulations, and a very detailed Design and Construction Standards Manual. The Town's professional staff is committed to updating these documents regularly to closely monitor and provide the minimum Federal and State guidelines to ensure that the environment is protected.

Additionally, in developing the Chesapeake Bay TMDL, we must all remember that the current conditions in our

urbanized watersheds developed over many decades with most of the land being privately owned. Plans and programs developed under the current initiatives need to take into account what can be achieved by the Town of Leesburg within the State of Virginia's governing laws. There are significant environmental benefits to redevelopment and transit-oriented development, as well as adverse environmental impacts associated with sprawl. If the costs of these stormwater management efforts are made to be too high, or if the stormwater management standards effectively become unattainable due to costs and unreasonable scientific measure, these beneficial redevelopment efforts will be hindered. A punitive focus on MS4 permits could ultimately prove detrimental to water quality by preventing development and redevelopment in already urbanized areas and driving new development into rural areas within the Chesapeake Bay Watershed.

Response

EPA appreciates the comment, and the acknowledgment that MS4 programs will be notable players in implementation of nutrient and sediment reductions in the watershed.

EPA agrees that redevelopment and transit-oriented development can provide environmental benefits when done correctly. EPA does not believe that well-formulated stormwater regulations are inconsistent with these types of development or the inherent goals, nor do they encourage sprawl.

23.6 - OCEAN INPUTS

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

23.7 - STREAMBANK AND TIDAL SHORELINE EROSION

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

23.8 - TIDAL RESUSPENSION

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

23.9 - ON-SITE WASTEWATER TREATMENT SYSTEMS

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

23.10 - WILDLIFE

Comment ID 0126.1.001.003

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The plan needs to assess the potential impairments and detriments that the unrestricted conversion of farm land to wildlife habitat will have on health and safety of our local communities.

Response

The TMDL does not require unrestricted conversion of agricultural land to wildlife habitat.

23.11 - NATURAL BACKGROUND

Comment ID 0689.1.001.011

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

19. The draft TMDL inadequately addresses the impact of legacy sediment to the Chesapeake Bay despite recent publications and studies addressing this source of nutrients and sediment found in the Chesapeake Bay Watershed (see Pennsylvania's draft WIP, p.128). When will EPA consider the impact of legacy sediment in its Chesapeake Bay Watershed Model?

Response

Within the watershed, legacy sediments and other erosion from the river system are inherently included in the calculation of sediment loads from the watershed in the Phase 5.3 Watershed Model. In simulated rivers, which are generally rivers greater than 100 cubic feet per second, erosion and scour are explicitly simulated and calibrated to about 130 sediment monitoring stations throughout the watershed. Based on the recommendations of the Sediment Work Group at the Chesapeake Bay Program, jurisdictions can get nutrient and sediment credit in their implementation plans for performing in-stream erosion control practices.

23.12 - GENERAL/MISCELLANEOUS

Comment ID 0515.1.001.022

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

B. As a part of the federal backstops, or otherwise, require Bay watershed jurisdictions that have not already done so in their WIPs to impose "common sense" LOT bans on TN and TP in lawn and other fertilizers, mandate the use of "slow release" fertilizers except in the first year of lawn seeding, and evaluate the results of such bans/mandates BEFORE "ratcheting down" on MS4s, CSOs, and WWTPs. Additionally, require that soil testing be required to justify "maintenance" fertilizer/nutrient spreading. Correspondingly, require jurisdictions that have not already done so in their WIPs to impose "common sense" LOT bans on TP in detergents, soaps, personal care, and cleaning products, and evaluate the results of such bans BEFORE "ratcheting down" on MS4s, CSOs, and WWTPs.

Response

EPA welcomes your input and suggestions on the actions the jurisdictions should be taking to reduce their nitrogen and phosphorous loadings to the Bay. EPA has deferred the development of the Watershed Implementation Plans (WIPs) to the jurisdictions. As such the states can develop their own plan and process to meet the allocations developed in the TMDL. EPA will not issue a backstop if the jurisdiction's WIPs are developed to meet their allocations and the expectations articulated in EPA's November 4, 2009 letter on WIPs (see link below). Fortunately, since the final state WIPs were much improved from the drafts, in the final TMDL EPA chose to reduce or remove the backstop allocations that were applied with the draft TMDL. The use of slow release fertilizers and TN and TP lot bans are not areas where EPA has regulatory authority. In regards to ratcheting down on MS-4s and CSOs please see the response to comment 0330.1.001.009.

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/tmdl_implementation_letter_110409.pdf

Comment ID 0689.1.001.010

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

18. The draft TMDL fails to adequately address real, practical mechanisms to reduce the loading from non-point sources, which account for the majority of the loadings to the Chesapeake Bay.

Response

The TMDL is a pollution budget for the Chesapeake Bay, the watershed implementation plans describe how the TMDL loading will be attained in the watersheds. The WIPs are the vehicles in which the mechanisms to reduce non point and other sources of nitrogen, phosphorous and sediment loads to the Bay are discussed.

Comment ID 0689.1.001.013

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

23. The draft TMDL notes that "EPA regulations require that in establishing the TMDL, the critical conditions... be identified and employed... " (p.6-3). The discussion regarding critical conditions for DO notes that, "the critical period for evaluation of the DO and water clarity WQS are based on identifying high flow period." As the draft TMDL further states, "high stream flow most strongly correlated with the worst DO conditions in the Bay. This is logical because most of the nutrient loading contributing to low DO comes from non-point sources... " The same assessment is true for water clarity and SAV. If EPA decides not to regulate loading reductions for non-point sources ("backstop allocation" approach), EPA would, by its own aforementioned statement, be ignoring the critical conditions that lead to the worst DO conditions in the Bay, which is contrary to EPA's own regulations that require "critical conditions to be identified and employed."

Response

Please see the response to comment 0110.001.005.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 24. TMDL Costs & Funding

Pages 2218 – 2565

24.0. TMDL Costs & Funding	Pages 2218 – 2236
24.1. Economic Impacts	Pages 2236 – 2419
24.2. Burden to States	Pages 2420 – 2427
24.3. Availability of Funding	Pages 2427 – 2488
24.4. General/Miscellaneous	Pages 2488 – 2565

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

24 - TMDL COSTS & FUNDING

Comment ID 0089.1.001.015

Author Name: Hunter J. And M.

Organization:

FY10 Farm Bill Programs

Obligated \$273,625 in 21 AMA contracts on 819 acres; paid \$128,801 in AMA funds; average contract value \$13,030

Obligated \$2,110,080 in 55 CBWI contracts on 4,311 acres; paid \$335,957 in CBWI funds; average contract value \$38,365

Obligated \$753,520 in 178 CSP contracts on 49,166 acres; average contract value \$4,23

Obligated \$5,772,823 in 287 EQIP contracts on 23,114 acres; paid \$1,050,556 in EQIP funds; average contract value \$20,114

Obligated \$858,100 in 75 contracts on 9,968 acres; paid \$103,595 in WHIP funds; average contract value \$11,441

Response

Thank you for your efforts and support in addressing environmental concerns in WV by utilizing the available funds in the USDA Farm Bill programs.

Comment ID 0184.1.001.005

Author Name: Hively Christopher

Organization: Town of Culpeper, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

EPA allowed jurisdictions the opportunity to develop a Watershed Implementation Plan that meets the TMDL allocations. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in response 0139.1.001.017 which

discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay. Please see the response to comment 0501.1.001.005 addressing public sector point sources and the response to comment 0067.1.001.009 regarding WIP backstops in the TMDL.

Comment ID 0196.1.001.004

Author Name: Moffett Jesse

Organization: Frederick-Winchester Service Authority

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt and constructing major new and enhanced facilities to meet our equitable share of the task of cleaning up the Bay. As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our wasteload allocations.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0198.1.001.009

Author Name: Covington Roy

Organization: Chesterfield County, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). We object to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005.

Comment ID 0206.1.001.005

Author Name: Vass Evan

Organization: Town of New Market, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005.

Comment ID 0209.1.001.005

Author Name: Saunders Thomas

Organization: Town of Kilmarnock, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0215.1.001.009

Author Name: Milo J.

Organization: Maury Service Authority (MSA)

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and

2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). We object to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0217.1.001.003

Author Name: Pozgar David

Organization: Logan Township

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion.

Response

The recommendations of the Blue Ribbon Finance Panel are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish funding or sources of funding. For this reason, EPA considers the recommendations of the Blue Ribbon Panel not to be relevant to the TMDL, but instead to the implementation of the TMDL. EPA has outlined Federal efforts to the Bay in the response to comment 0038.1.001.024. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0218.1.001.003

Author Name: Wright Ronald

Organization: Borough of Everett Area Municipal Authority, Bedford County, Pennsylvania

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0223.1.001.006

Author Name: Hazenstab Robert

Organization: Duncansville Municipal Authority

8. We think the State and U.S. EPA should look to other sources of nitrogen and phosphorous contributing to the Chesapeake Bay to do their fair share of TN and TP removal. This would spread the cost over the entire general population and should include other Bay States as well as Pennsylvania.

9. Targeting Bay watershed communities and businesses in Pennsylvania to remove 55% of incoming TN and TP to the Bay puts these affected portions of Pennsylvania at a severe economic disadvantage compared to businesses and communities that are outside the Bay watershed, even in Pennsylvania. Sewage treatment costs have already risen

and will continue to rise for these communities and businesses while competitors outside of the Bay watershed are unaffected.

Please allow time for the Chesapeake Bay Tributary Strategy, developed by the Commonwealth of Pennsylvania; to be implemented and to serve as the Commonwealth's plan for addressing the Chesapeake Bay water quality issues. Our biggest fear is that all of this money will be spent and it will end up having no measurable impact to water quality in the Bay due to impacts and forces not currently known or recognized as contributors to the Bay problems. Thank you.

Response

The states are responsible for allocating the tributary loads to the source sectors within their jurisdiction as part of the jurisdictions' Watershed Implementation Plan that will be used to inform the TMDL. A jurisdiction may choose to take action towards individual or more general sectors in achieving load reductions. A jurisdiction should work closely with the significant WWTPs in its jurisdiction to ensure that the above considerations are taken into account as part of sector-specific or individual WLAs distributed in its Watershed Implementation Plan development. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0226.1.001.012

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

Additionally, the TMDL and Virginia WIP fail to adequately address gaps in funding, staff resources, and legislative authority. In particular, we request that adequate funding and authority for local governments be made a part of the reasonable assurance test and that comprehensive state and federal funding are made available to cover the costs of implementation. Current estimates for the urban retro-fit to achieve target loads listed in the proposed TMDL vary from \$267 to \$315 million, not including operation and maintenance and land acquisition cost, for Hanover County. This equates to between \$570 to \$1150 per year per household over the implementation period. These costs do not include the costs for point source treatment plant upgrades, which will be over \$30 million in capital costs (totaling approximately \$52 million when considering financing costs over 30 years) in addition to the increased operations costs. Consideration has not been given to the expenditures already made based on the current nutrient limits as well as other regulatory requirements, or for cost of agriculture best management practices contemplated under the proposed TMDL. New proposals for local utility based fees or general tax increases to support these expenditures are unpopular with many citizens and cannot realistically be funded by local government. This will make local government responses to mandated programs particularly difficult, if not impossible.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Please see the response to comment 0067.1.001.009 and Section 8 of the TMDL report regarding WIP backstops.

Comment ID 0257.1.001.003

Author Name: Christian Stephen

Organization: Berkeley County Development Authority, Berkeley County, Martinsburg, West Virginia

Because our publicly owned wastewater facilities in Berkeley County are not currently designed or required to remove nitrogen and phosphorus from the waste stream, significant capital investment in new treatment processes will be required. In addition, increased operations and maintenance expenditures will be necessary to operate and dispose of by-products generated by the new processes. The required investments for nutrient controls will raise sewer rates for customers in Berkeley County an estimated 40% to over \$66 per month for the average residential user. Rates for commercial and industrial users would likewise increase 40% over current rates. The costs of the nutrient removal processes will also likely result in a deferral or cancellation of other critical infrastructure extensions and/or improvements.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0269.1.001.003

Author Name: Mixell John

Organization: Forbes Road School District

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should

provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0281.1.001.005

Author Name: Hammes Dale

Organization: Loudoun Water

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0284.1.001.003

Author Name: Shwed John

Organization: Town of Laurel, Delaware

If technology exists to enable us to meet these standards then the Federal Government should make grant funding available for plant modifications; not loans, but grants. Our people are paying debt service now on a loan for the current waste water treatment plant. Finally, why should the citizens of western Sussex County, Delaware is expected to bear a disproportionate share of the cost just because their homes and businesses are connected to a point source of water discharge?

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0286.1.001.002

Author Name: Salisbury Galen

Organization: Chemung County Sewer Districts (CCSD)

With regards to the local impacts, there currently exist two special districts that have been established in Chemung County for the purpose of providing public sewer service to the more densely populated areas of the County. Each district has its own staff and budgets and operates on funds that are collected exclusively from those residences in the districts for the sole purpose of collecting and treating their wastewater. There is typically no contribution of federal or state funds that are received or used for such services. As it stands today it would appear that all the funding for nutrient removal for the purpose of addressing the environmental issues of the Chesapeake Bay would need to come from a very limited source.

In 2009 each District entered into an agreement with a licensed engineering firm to perform a nutrient removal study in accordance with the terms and conditions as stated in their respective NPDES permits. The study was to look at identifying possible cost effective ways to reduce nutrients being discharged from each treatment facility. In addition the study was to look at ways to reach Best Available Technology results for nitrogen and phosphorous removal (5.0mg/l N and 0.5mg/l P). Both treatment facilities currently use trickling filters for treatment and perform very well for the removal of BOD and TSS and the facilities have been found to be providing nitrification during most of the year. While trickling filters have proven to be a sound and effective means of providing secondary treatment, they do not, unlike activated sludge systems, allow for much if any process control that would provide for nitrogen or phosphorous removal. Therefore the results of the study indicated that a major upgrade at a cost of \$15M for one facility and \$14M for the other would be required to achieve any nutrient removal. The O&M costs consisting of primarily chemicals and energy was estimated in 2009 dollars to be \$1M/yr and \$0.75M/yr respectively. This would result in an approximate 50% increase to the current operating budgets of the facilities.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0286.1.001.004

Author Name: Salisbury Galen

Organization: Chemung County Sewer Districts (CCSD)

Second, it is felt that the EPA should take into account and consider the monies that have been invested over the years to preserve New York's, and ultimately the Bay's, water quality. And finally, should the EPA choose to proceed and adopt the TMDLs as proposed, recognize that the financial impact to taxpayers and businesses would be crippling and therefore not possible to accomplish or sustain.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

It is EPA's desire to credit all water quality improvements as they occur. EPA has requested that nitrogen, phosphorus and sediment controls be reported annually. This data will be compared with water quality monitoring throughout the watershed so that loads can be tracked and verified. Point source controls can be more easily be tracked because regulation requires that NPDES permits are consistent with TMDL waste load allocations. The only way that EPA can credit a BMP in the watershed is if it has been reported and BMPs installed voluntarily need to be reported in order to be credited.

Comment ID 0289-cp.001.001

Author Name: Mellott Stanley

Organization: Todd Township Supervisors

If EPA's back stop measures are implemented it will place a huge financial burden on the township as well as our customers with the end result being no net gain of nutrient reduction in the bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0291-cp.001.003

Author Name: Koch E.

Organization: North Middleton Authority

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0297.1.001.004

Author Name: Swailes Anna

Organization: Metal Township Municipal Authority

We will not be able to secure grant funding due to the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. Federal and state funding ultimately comes from the folks and that is not an option.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0301.1.001.003

Author Name: Pappas Peter

Organization: Middletown Borough Authority

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

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Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0303.1.001.008

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). We object to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0304.1.001.020

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

Hickory Township, Forest County, Pa. is currently tasked by the Pa. Department of Environmental Protection to update our Sewage Facilities Plan (Act 537) and thereafter, implement said plan. At this time it appears that the only way to satisfy DEP requirements will be the construction of a Sewage Treatment Plant that will serve 210 residences. While final costs cannot be determined at this point in the process, preliminary estimates suggest the project costs to be somewhere between four to five million dollars, with operating costs anticipated at 50 to 60 dollars per month for each unit served.

The areas to be served are comprised mainly of elderly folks living on fixed incomes, young people raising families and seasonal residences. Most of these folks are well below average income. With the exception of Intergovernmental Revenues dedicated to road maintenance, the annual income to Hickory Township's General Fund is about 74K. Since PENNVEST is not funding these types of projects at this time, the Engineers are applying to Rural Utility Services (USDA) to pre-qualify the township for funding. Whether that funding comes in the form of grants or loans, we can't say at this time.

According to the mandate from DEP (Consent Order and Agreement) construction must begin by the end of 2013 and be completed by October 31, 2014. The design phase of the project will begin upon DEP approval of the 537 Plan, expected to occur in the first quarter of 2011. Inability to obtain financing is not considered a reason for not starting or finishing the tasks set forth. Fines of \$100 per day commence when any schedule milestone misses its completion date.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

EPA cannot speak to issues that are a requirement of DEP, however Act 537 has been in place since 1967 for municipalities to resolve sewage disposal problems.

Comment ID 0313-cp.001.003

Author Name: Opalisky Larry

Organization: Curwensville Municipal Authority

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0316.001.005

Author Name: Bulova Sharon

Organization: County of Fairfax, Virginia

We are committed to restoring the Bay. However, no matter how laudable the intentions behind the development of the Chesapeake Bay TMDL, the most certain outcome will be another disappointing program failure if indifference at the federal level to economic and fiscal impacts continues. If concerns related to costs are not analyzed and addressed at the early stages of this initiative, the entire program will fail under the weight of the economic burdens it will impose upon many local governments and businesses and then to individual households. We understand, from EPA's public comments, that cost is not one of their considerations in developing the TMDL. However, without a firm understanding of the costs and how the burdens of meeting these costs will be distributed, there will be neither equity nor the true "partnership" advocated by the state and EPA, and local governments will be set up for failure.

Response

With regard to EPA performing a cost analysis as a part of the Bay TMDL, please see the response to comment 0139.1.001.017. Also, please see the response to comment 0501.1.001.005 regarding public sector point sources and the response to comment

0038.1.001.024 outlining the Federal effort to the Bay.

Comment ID 0321.1.001.006

Author Name: Fanfoni Kenneth

Organization: Augusta County Service Authority, Verona, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0324.1.001.005

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0370-cp.001.003

Author Name: Page T.

Organization:

o Any additional pollutant allocations required by EPA should be assigned on the basis of the cost-effectiveness and cost-benefit in pollutant reductions achievable by available Best Management Practices (BMPs). Recommend that they consider the cost-effectiveness and cost-benefit data prepared by Mike Rolband of Wetland Studies and Solutions.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0379.1.001.001

Author Name: Shields Wyatt

Organization: City of Falls Church, Virginia

On September 7, 2010, the Commonwealth of Virginia issued a Chesapeake Bay TMDL Phase I Watershed Implementation Plan ("Draft WIP"). On September 22, 2010, the United States Environmental Protection Agency ("EPA") issued a Notice for the Public Review of the Draft Total Maximum Daily Load ("Draft TMDL") for the Chesapeake in the Federal Register. The purpose of this letter is to submit comments in response to the EPA Federal Register Notice and Virginia's Draft WIP on behalf of the City of Falls Church, Virginia. We appreciate the opportunity to provide comments on these documents, both of which will have profound impacts on our community and drive increased efforts to restore the Chesapeake Bay through 2025 and beyond.

Both draft documents outline sector-specific implementation measures for the different source categories that impact the bay. The ultimate responsibility for controlling most of these source sectors falls to local governments; and the cost to comply with the controls proposed will be borne by the same local tax and rate payers. Of these sources, the City of Falls Church is primarily concerned with the strategies for controlling urban stormwater runoff.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0379.1.001.007

Author Name: Shields Wyatt

Organization: City of Falls Church, Virginia

Looking Forward

The City of Falls Church is committed to restoring the Bay. However, no matter how laudable the intentions behind the development of the Chesapeake Bay TMDL, the most certain outcome will be another disappointing program failure if indifference at the federal level to economic and fiscal impacts continues. If concerns related to costs are not analyzed and addressed at the early stages of this initiative, the entire program will fail under the weight of the economic burdens it will impose upon many local governments and businesses and then to individual households. We understand, from EPA's public comments, that cost is not one of their considerations in developing the TMDL. However, without a firm understanding of the costs and how the burdens of meeting these costs will be distributed, there will be neither equity nor the true "partnership" advocated by the state and EPA, and local governments will be set up for failure.

Response

Please see response to 0159.001.001 to address economic impacts. For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0412.1.001.004

Author Name: Lohr Matthew

Organization: Virginia Dept. of Agriculture and Consumer Services

VDACS strongly urges the EPA to work with the states and the District of Columbia to minimize the use of new regulations. New regulations can have a significant (and negative) impact on farm operations in the Bay watershed. We recommend that EPA further consider the use of existing state water quality programs with increased resources-to address TMDL objectives. VDACS feels that a greater level of reasonable assurance can be provided by better utilizing its existing state water quality programs. By increasing the currently limited resources dedicated to these programs, through a better coordination of efforts, and by better targeting of those resources, state programs can achieve much greater success in protecting water quality. It is much more cost effective for the Commonwealth to take this approach than to consider further regulation as a means of providing reasonable assurance as it pertains to the agricultural sector.

Response

EPA reminds the commenter that the TMDL is not a federal regulation. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 regarding agricultural funding. With regard to EPA's rationale behind WIP backstops, please see the response to comment 0067.1.001.009 and section 8 of the TMDL.

Comment ID 0463.1.001.009

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

8. Construction General Permit - Erosion and Sediment Control

The State currently administers the NPDES permit for construction activities. However, the adopted regulations (administratively suspended until after the Bay TMDL) will delegate issuing authority to the localities. The Bay TMDL and the newly adopted Effluent Guidelines will increase the stringency of the permit. If a locality is administering this permit, then the locality must receive additional funding beyond the suspended State Stormwater Regulations that do not include the Bay TMDL or Effluent Guidelines. Therefore the regulatory fees as stands are less than adequate to administer this program. Finally, the locality administering this program must receive credit for these BMPs in the stormwater WLA assigned to its MS4 permit.

Response

EPA agrees that verifiable management measures should be tallied/credited in the accounting system for TMDL implementation. State programs are developing and refining the necessary tracking methodologies to accomplish this. The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0598-cp.001.003

Author Name: Jones George

Organization: Foxglade Farm

While everyone speaks about all the cost share dollars that will be available with the state of the national economy and debt, there needs to be some consideration that such dollars may not be forthcoming and look to a voluntary approach.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. Future enhancements could include voluntary programs to implement practices that would reduce pollution run off.

24.1 - ECONOMIC IMPACTS

Comment ID 0038.1.001.008

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

According to Governor McDonnell in the introduction to Virginia's WIP, addressed issues of job loss and economic hardship. It's important to understand that initial costs may be higher, but many times in the long run, these actions and precautions will end up saving money. From another standpoint, the state tourism economy (which Governor McDonnell made a big focus during and after this year's General Assembly session) will take a negative hit. As a Virginia resident, I remember beaches in Virginia Beach being closed during the peak summer season due to pollution-induced high bacteria counts. Closer to home, the James River in the Richmond area has been affected with the same sort of pollution-based bacterial problems during the summer. The James is known for its rapids and Virginia Beach for its fun family atmosphere. If these areas and others like them continue to be plagued by pollution, tourists are going to venture to other places, far from harmful, polluted waters and in this economically hard time the state does not need to lose tourist revenue.

Response

Please refer to the response to comment 0159.001.001 to address economic impacts. Please also refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Below are examples of how clean waters have been shown to aid in a State's economy; it is EPA's desire to ultimately have a positive impact on water quality and the economy with this TMDL.

Between the years 2007-2010 funding for public access in the Chesapeake Bay watershed totaled \$14,187,419. In 2007, visitors to recreational and heritage sites generated \$18 billion in Virginia (21). Tourist and leisure related industries employed nearly 350,000 workers in Virginia as of June 2010 (22). More than 23 million people visited Virginia's national and state parks during 2009 (23). Statewide, travelers spent over \$17 billion during 2006 (24). Nationwide in 1996 nearly 14 million people spent close to \$20 billion hunting game and migratory waterfowl and 62 million people participate in wildlife viewing and photographing every year, spending more than \$29 billion (25). A 2006 study compared the 1996 water quality of the Bay with what it would have been without the Clean Water Act and estimated that the annual recreational boating, fishing, and swimming benefits of water quality improvements ranged from \$357.9 million to \$1.8 billion (26).

References:

Specific dollar amounts taken from Chesapeake Stat: <http://stat.chesapeakebay.net/?q=node/3>

21) Virginia Tourism Corporation. Impact of Travel on Virginia, Preliminary 2007 and 2006.

www.vatc.org/research/economicimpact.asp.

22) U.S. Department of Labor, Bureau of Labor Statistics. www.bls.gov/eag/eag.VA.htm. Visited July 22, 2010.

23) Virginia Tourism Monitor Information. www.vatc.org/research/Parks/Parks.html. Visited July 22, 2010.

24) Virginia Tourism Authority. September 2007. The Economic Impact of Domestic Travel Expenditures on Virginia Counties 2006. A Study Prepared for the Virginia Tourism Authority by the Travel Industry Association.

www.vatc.org/research/2006VAReport91707.pdf.

25) J.B. Braden, et al. 2004. Journal of Water Resources Planning and Management, Vol. 130, No. 6, Nov/Dec 2004, pp. 498505.

26) Morgan, et al. 2001. Benefits of water quality policies: the Chesapeake Bay, Ecological Economics, Volume 39, Issue 2, November 2001, pp. 271284.

Comment ID 0044.1.001.005

Author Name: Blackwood Lorene

Organization: Virginia Green Industry Council

During these difficult economical times, identifying the resources to support the necessary changes is essential.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0046-cp.001.002

Author Name: Grattan Gil

Organization: Virginia Turfgrass Council

Were you aware a small turfgrass lawn provides oxygen for a family of 4 for an entire year. Turfgrass also is beneficial to the environment by filtering nutrients, dust, and carbon dioxide. Turfgrass even cools the surrounding areas and reduces the cost to cool houses.

Properly applied nutrients to a turfgrass lawn are used 100% by the grass plants. This study has been done at NC State by Dr. Tom Ruffy and various other land grant colleges throughout the United States. In fact in golf course situations, the turfgrass filters the nutrients so much so that the water entering the golf course is cleaner than when it entered the property.

I am a small business owner with 23 total employees. Current regulations such as mandatory reporting, black out dates and other regulations unfairly effect our industry and since we don't receive any state or federal funding, make it difficult

for us to run our businesses with substantial increases in costs.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. .

Comment ID 0052.1.001.001

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

VACo strongly desires to play a constructive role in improving water quality in the Chesapeake Bay and all waters of Virginia, and we believe that a sound strategy for improving water quality to levels required by EPA will not succeed unless the economic costs associated with these efforts are fully understood, and a plan is developed for distributing these costs among the different levels of government.

It is important for EPA to understand that local governments in Virginia have major concerns about the costs that the TMDL initiative will impose upon local governments. In the current economic conditions, these initiatives could not be coming at a more difficult time.

Response

Please see response to Comment ID 0139.1.001.017

Comment ID 0052.1.001.003

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

For most local governments, the most direct impact is MS4 permits, combined stormwater permits where the TMDL may require retrofits, but says nothing about how local governments will pay for them. EPA needs to tell the states that they have an obligation to provide funding if they require major retrofits at the local level. For that matter, EPA says nothing about federal funding to help meet requirements of the TMDL. They do not understand the implications that local governments may, indeed will, have to raise taxes to meet the requirements, and the issues that raises with local taxpayers.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. While EPA is developing the TMDL for the

Bay jurisdictions, EPA is not assigning individual waste load allocations to individual municipalities and MS4 communities. States will work with their municipalities to determine the most appropriate allocations across a particular source sector. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Comment ID 0052.1.001.006

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

No matter how laudable the intentions behind the development of the Chesapeake Bay TMDL program, the most certain outcome will be another disappointing program failure if indifference at the federal level to economic and fiscal impacts continues. If concerns relating to costs are not analyzed and addressed at the early stages of this initiative, the entire program will fall under the weight of the economic burdens it will impose upon many local governments and businesses. Furthermore, if we don't have a firm understanding of costs and how the burdens of meeting these costs will be distributed, we don't have a true "partnership."

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information please see the response to Comment ID 0052.1.001.001 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0052.1.001.007

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

VACo urges state and federal agencies to consider carefully impacts on local governments of any initiatives intended to reduce loadings of pollutants into state waters from both point and non-point sources. In order for comprehensive, watershed-wide, water quality improvement strategies to be effective, major and reliable forms of financial and technical assistance from federal and state governments will be necessary. VACo supports the goal of improved water quality but will vigorously oppose provisions of any strategy that threatens to penalize local governments by withdrawing current forms of financial assistance or imposing monitoring, management or similar requirements on localities without providing sufficient resources to accomplish those processes."

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL.

Comment ID 0054-cp.001.002

Author Name: Dunning Rich

Organization: City of Hornell, New York, Water Pollution Control Plant

Since the EPA has no ability to control nutrient contributions to the Chesapeake Bay from run-off then the burden for reducing nutrients to the Bay falls to the above mentioned permitted entities.

For example, the potw's in New York State are responsible for only 1% of the nutrients delivered to the Chesapeake Bay. When the TMDL is established these same small communities will need to spend hundreds of millions of dollars in order to equip their facilities to meet the standard.

This is not only wasteful it is also ineffective.

Response

Please see the response to comment 0080-cp.001.002.

Comment ID 0067.1.001.007

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

All of these efforts do not come without significant effort and investment - as we have tried to move rapidly and responsibly to meet the targets set in the Pennsylvania WI P even before it has been finally adopted. That investment must be viewed in the context of a business climate that is best described as extremely challenging where all entities, including ours, has been affected by a recession of global dimensions. We are enduring costs that are not readily passed on to customers, given the nature of global competition and competitive margins in the inorganic chemicals market. We are willing to do our part, but it is not easy.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0067.1.001.013

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

Because of the unique characteristics of our production process and wastewater (which as noted above is almost entirely inorganic, not organic-based like sewage treatment plants), the GTP Facility cannot use biological treatment processes. Hence, the technologies that EPA considers to possibly be available to meet the limits of technology (what EPA describes as 3 mg/l of TN and 0.1 mg/l of TP) would not be effective or applicable to our situation. To even conceivably approach the levels that EPA describes as limits of technology (which are higher than what EPA has proposed to impose in the Backstop TMDL) would essentially require some combination of evaporation, crystallization, membrane separation, filtration, and revamped processes allowing recirculation, at astronomical costs, and engendering significant consumption of natural gas, electricity, and attendant NOx and other emissions. A preliminary, conservative estimate is that such a system would cost on the order of \$60 million, and engender operating costs of some \$35,000 per day (\$12,800,000 per year). The result would be to render operation of the GTP Facility uneconomic and unsupportable.

Response

Please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration. Also, please see the response to Comment ID 0067.1.001.009 which discusses WIP backstops.

Comment ID 0067.1.001.014

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

What we can advise you today is that if EPA were to impose the Backstop TMDL and the values set forth in Table Q2 were imposed in an NPDES permit, GTP would have virtually no choice but to shut down the entire GTP Towanda Plant - leaving more than 900 dedicated and very hardworking employees without a job, and depriving a community of its largest and longest-standing employer.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0079.1.001.002

Author Name: Dunning Rich

Organization: City of Hornell, New York

If the Chesapeake Bay is a national treasure shouldn't all of the stakeholders pay for this project?

The Obama administration is attempting the clean up of the Chesapeake Bay by mandating the regulations that are required to clean up the Bay. By law the TMDL needs to be achieved in the next 15 years. Once the new regulations kick in treatment plants in the watershed will violate their permits. These violations will stir headlines. Permit violations will also trigger regulatory actions from the EPA that will require up to twenty- eight wastewater treatment plants to be upgraded or face daily fines for non-compliance.

Fact: Publicly owned treatment plants in New York State are responsible for about 1% of the nutrients delivered to the Chesapeake Bay. It is estimated that the cost to upgrade treatment plants in New York to remove the nutrients is \$1 billion.

Response

EPA reminds the commenter that the TMDL is not a Federal regulation. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding municipal point sources. For a response regarding equity and the state of New York please see comment 0080-cp.001.002 and the response to comment 0267.1.001.006.

Comment ID 0079.1.001.005

Author Name: Dunning Rich

Organization: City of Hornell, New York

The cost to upgrade the City of Hornell Wastewater Plant was estimated to be \$6 million in 2005. The Operations and Maintenance expense for the new equipment will add 40% to our annual budget. This expenditure would be wasteful and ineffective because we are responsible for so little of the nutrient waste that reaches the Chesapeake Bay.

Response

EPA allowed jurisdictions the opportunity to develop a Watershed Implementation Plan that meets the TMDL allocations. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to comment 0139.1.001.017. For an additional response specific to New York please see comment 0080-cp.001.002.

Comment ID 0081-cp.001.001

Author Name: Myer Richard

Organization: Running Man Community Association, Inc.

The economic impact of these proposed changes has not been disclosed by the EPA. Within the SE Virginia region estimates run between \$600 per person per year to \$ 1,400 per household per year in order to implement these regulations. Homeowner Associations are also caught in the middle. The associations are responsible for storm water Best Maintenance Practice (BMP) lifecycle maintenance to include maintenance of dry and wet ponds. These pending EPA regulations may halt efforts to clean up BMPs for the next year or two until the Home Owner Associations understand how to implement processes to meet the new regulations. The EPA has not disclosed how localities, including homeowner associations, are supposed to meet these regulations and what will be necessary.

Response

Thank you for your comments. EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0089.1.001.004

Author Name: Hunter J. And M.

Organization:

The Bay TMDL, which requires Virginia to develop a Watershed Implementation Plan (WIP), will have a high cost for compliance for all sectors. While we agree that there is a benefit of clean waters within the Bay and local watersheds, the economic costs for compliance must be balanced, and water quality programs cannot be developed in a vacuum without considering economic impacts to the economy.

Before moving forward with a finalized Bay TMDL, EPA must conduct a non-biased economic impact analysis. Experts from land-grant universities from across the watershed could be called upon to evaluate the actual costs of meeting water quality standards for businesses, citizens, localities, states, and the federal government.

Agriculture has the benefit of estimating some expenses based on existing data on cost of implementing AgBMPs through current state and federal programs.

--Virginia estimates that just one practice (cattle fencing) could cost more than \$800 million to implement. Fencing cattle from streams, putting in crossings, providing alternative watering, etc. costs on average \$30,000 for a Virginia cattle farmer.

--Virginia's Natural Resources Commitment Fund says Ag BMP cost-share funds will need to be \$63.2 million annually from 2025 in order to get 60% NPS reduction goals from agriculture. This is only cost-share funding from the state--doesn't account for federal government's traditional share of funding or the money that comes from farmers.

--Current funding estimates are just based upon the cost of installing the practice, they do not account for costs like loss

of productive land, replacing practices when weather damages occur, fluctuations in markets, etc.

Economic conditions (lack of profits, increased input costs, additional credit not an option) means that extra money to meet regulations is non-existent.

Due to long-term devastating economic conditions for agriculture (like other sectors), federal backstops alone (mandatory permitting of small dairies, requiring some ag processing plants to do more) will be enough to drive some farmers out of business.

EPA's federal backstops requiring more unregulated lands to meet MS-4 (urban lands) requirements may cause significant economic hardship for urban landowners, including the green and turfgrass industries.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0089.1.001.009

Author Name: Hunter J. And M.

Organization:

There is concern within WV that 8 counties out of 55 are being pressed to spend additional funds to upgrade their operations , potentially putting them at a marketing disadvantage further reducing profit margins.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0101-cp.001.003

Author Name: Guevremont Jon

Organization: Reality Farms

Also, compliance costs and Current Economy The Bay TMDL, will be high for all sectors. I agree that there is a benefit of clean waters within the Bay and local watersheds, the economic costs for compliance must be balanced, and water quality programs cannot be developed without considering economic impacts on farmers. Before moving forward with a finalized Bay TMDL, EPA must conduct a non-biased economic impact analysis, for instance, by land-grant university experts from across the watershed. Agriculture has the benefit of estimating some expenses based on existing data on cost of implementing AgBMPs through current state and federal programs.

Response

Thank you for your comments. Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0103.1.001.008

Author Name: Laudeman Todd

Organization: Tioga County Landowners Group

Agriculture is a leading industry in the Chesapeake Bay watershed and is important to the economy of our communities. Many farms will be unable to afford the increased financial burden that accompanies not only the implementation of the EPA mandated BMPs, but the on-going operation and maintenance. Many farms will have no choice but to go out of business. For the sake of water and air quality; landscape management; food, fiber, and energy production; and rural communities and economies, this is an experiment that NY can afford to take.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0126.1.001.002

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The plan needs to provide a cost-benefit analysis of the recommended agricultural BMPs to determine if the proposed benefits outweigh the costs.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0126.1.001.014

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

A cost benefit analysis of the recommended agricultural BMPs should be completed before implementation.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0127-cp.001.003

Author Name: Ellerson H.

Organization:

VAC whines about a lack of subsidy for agribusiness to enable it to do the "right thing," but other businesses must comply without receiving taxpayer subsidies. Agribusiness is excessively subsidized in several dimensions, in my opinion, and should instead pay its own way.

The Chesapeake Bay needs to be cleaned up now, and agribusiness needs to step up to the plate and do its part.

Response

Thank you for your comment.

Comment ID 0129.001.002

Author Name: Bailey R.

Organization:

I'm a big advocate for the environment, but it seems that the EPA is going to cause our locality of Poquoson Va to go bankrupt if we follow your regulations. I just do not think we can afford to have taxes go up by 25 - 33% to fund this.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0133-cp.001.005

Author Name: Foster Pansy

Organization: Triple F Jerseys, LLC

It is estimated that 50% of NY farms could go out of business if the proposed regulations are put into effect.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0136-cp.001.001

Author Name: Comment Anonymous

Organization:

I feel that it is unnecessary to implement new regulations & taxes on the taxpayers at this time when the economy is still not in good shape and people are struggling to get by.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0138-cp.001.003

Author Name: Patterson, Jr. W.

Organization: Shepherd's Haven Farm

Honestly, the approach used by EPA smells too much like the animal rights approach. We are going to drive the livestock farmers out of business and force everyone to become vegetarians and Vegans like them. They are famous for telling things that are part truths and applying them falsely to animal farming and your use of poor modeling is going to do the same thing. You are going to drive farmers out-of-business with incomplete data and part truths. In fact you have not accounted for a lot of work that has already been done in our state.

Response

EPA understands the significant cost pressures that both states and municipalities are under given the current economic climate in the United States. There are several cost-share, grant and technical assistance programs that EPA is funding in order to assist the Bay community in this undertaking. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

It is EPA's desire to credit all water quality improvements as they occur. EPA has requested that nitrogen, phosphorus and sediment controls be reported annually. This data will be compared with water quality monitoring throughout the watershed so that loads can be tracked and verified. Point source controls can be more easily be tracked because regulation requires that NPDES permits are consistent with TMDL waste load allocations. The only way that EPA can credit a BMP in the watershed is if it has been reported and BMPs installed voluntarily need to be reported in order to be credited.

EPA models have been able to show that it is feasible and possible to meet the TMDL allocations. Part of EPA's intent in working with the jurisdictions in developing the Watershed Implementation Plans was to allow the individual jurisdiction to best choose how to meet the allocations of the TMDL. This would allow the individual jurisdiction to select the best course of action for the economics and the environmental quality.

Comment ID 0138-cp.001.004

Author Name: Patterson, Jr. W.

Organization: Shepherd's Haven Farm

I am a sheep farmer and have used cost-share programs to set up rotational grazing and fence-out practices. However, some of my land is in the flood plains of Hays Creek and it is cost prohibitive to maintain fencing in those areas. USDA has excellent programs to enforce good conservation practices and use no-till planting on all my land. So I am supportive of good conservation measures and you are welcome to come look at my approach to witness the same. But what you are doing is trying to drive livestock farming out of the valley of Virginia and I think that is very wrong.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 regarding agricultural funding. The implementation of this TMDL is not intended to limit livestock farming or impede economic vitality in any community. EPA allowed and encouraged jurisdictions to develop a Watershed Implementation Plan that meets the TMDL allocations in the manner most feasible for that jurisdiction. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to comment 0139.1.001.017. However, there are economic benefits to improving local water quality. A study by the University of Virginia found that implementation of the agricultural practices to reduce runoff pollution called for in Virginia's Chesapeake Bay "tributary strategy," such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts. Over a five year period these actions would create \$940 million in industrial output, a \$455 million impact on gross domestic product, and create nearly 12,000 jobs (42).

42) Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in Virginia's Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. February 23, 2010. www.coopercenter.org/sites/default/files/publications/BMP_paper_final.pdf.

Comment ID 0138-cp.001.007

Author Name: Patterson, Jr. W.

Organization: Shepherd's Haven Farm

I am not opposed to good environmental stewardship, just poorly applied plans that cost the livestock industry severely.

Response

Thank you for your comment.

Comment ID 0139.1.001.006

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

Economics is a major factor in the farmer's ability to implement these practices. The average turkey hen litter has a nutrient analysis of 43 pounds of nitrogen, 50 pounds of phosphorus, 53 pounds of potash, and 1350 pounds of carbon organic matter. Using today's cost (provided by the local Cooperative) to replace these nutrients; the nutrient value of that ton of litter is \$85. If we assume no poultry farm needs additional phosphorus that ton of litter still contains \$49 of nitrogen and potash per ton that would otherwise have to be replaced with commercial fertilizer. A poultry farmer can sell his or her litter for only \$12 a ton. If the poultry farmer is prohibited from applying on-farm generated manure to their crops because of a base saturation cut off and must replace it with commercial fertilizer, it results in a net difference of \$37 per ton for the producer. An average poultry house produces 300 tons per year. This is an added cost to the

producer to raise his crops of \$11,100 per poultry house. The poultry farmer cannot sell organic nutrients off the farm and replace it with commercial fertilizer with the proceeds of those organic nutrients. We need to explore a cash incentive to address this negative cash flow.

While the poultry producer has an option transporting dry litter, the local small dairy has no alternative to selling the liquid manure. The cost of transport beyond two miles is greater than the nutrient value of the manure. If the dairyman is prohibited from applying on-farm generated manure to their crops they are out of business.

The examples above show that the cost of proposed regulations will have a detrimental effect on the viability of the agriculture sector.

Response

Thank you for your comment and the real life example of the economic impact to individual farmers. The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. EPA allowed and encouraged jurisdictions to develop a Watershed Implementation Plan that meets the TMDL allocations in the manner most feasible for that jurisdiction. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to comment 0139.1.001.017. However, there are economic benefits to improving local water quality. A study by the University of Virginia found that implementation of the agricultural practices to reduce runoff pollution called for in Virginia's Chesapeake Bay "tributary strategy," such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts. Over a five year period these actions would create \$940 million in industrial output, a \$455 million impact on gross domestic product, and create nearly 12,000 jobs (42).

42) Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in Virginia's Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. February 23, 2010. www.coopercenter.org/sites/default/files/publications/BMP_paper_final.pdf.

Comment ID 0145.1.001.006

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Our Facilities are the largest of the 28 existing "significant" wastewater plants (as well as the largest of the total 55 wastewater plants) in the New York State portion of the Chesapeake Bay ("Bay") watershed and, while making significant contributions to the well-being of the Bay watershed, stand likely to be both greatly and adversely impacted by implementation of the TMDL.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0151.001.001

Author Name: Woodford RC

Organization: Chenango County Board of Supervisors

the federally-designed TMDL, intended to limit nitrogen, phosphorous and sediment discharges into the Chesapeake Bay watershed, is now to cost New York State as much as \$250 million over the next 15 years, without being able to satisfy EPA's regulatory goal

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Comment ID 0154-cp.001.008

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- Given the current economic climate, the imposition of financially unsupportable requirements will result in no improvements from redevelopment, bankrupt HOAs, additional cuts in local government services, promotion of green-field development over smart and/or transit oriented growth and a waste of taxpayer dollars if there is no cost benefit analysis.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA

established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0157-cp.001.002

Author Name: Bridgewater, Jr. Bennie

Organization: Bridgewater Greenhouses

The expenses of implementing any of the practices, will put all agriculture in VA out of business. Thank You.

Response

Thank you for your comments. Please see the response to 038.1.001.024 outlining the federal effort towards the Bay and response to 138-cp.001.004 on agricultural impacts.

Comment ID 0159.001.001

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Achieving the Chesapeake Cleanup goals will be enormously expensive. To have any chance to achieve those goals, we will need to use the most efficient methods available and target the biggest problems - instead using the methods and targets that are most politically correct.

Even the most optimistic estimates for a cleanup plan produce staggering cost estimates. For example, one recent (2004) estimate was for \$28 BILLION - a cost that would be borne largely by States with waterways that drain into the Chesapeake Bay like New York, West Virginia, Pennsylvania and Delaware as well as Maryland and Virginia and Washington, DC that have waterfront lands long the Bay's main stem. No funding has been identified to pay these costs and is difficult to see where the money would come from given competing needs for governmental funds. Given the federal deficit, we cannot depend on federal funds to pick up these costs. Yet dividing the \$28 billion cost estimate by the 17 million people living in the Bay watershed works out to be \$1,647 per person.

Response

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. EPA does not dispute the costly nature of improving water quality in the Bay watershed. EPA reminds the commenter that we are under

legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. It is EPA's preference that each jurisdiction develops a Watershed Implementation Plan that meets the TMDL load allocations in a manner that best meets the needs of the jurisdiction both environmentally and economically. The states are responsible for allocating the tributary loads to the source sectors within their jurisdiction as part of the jurisdictions' Watershed Implementation Plan that will be used to inform the TMDL. A jurisdiction may choose to take action towards individual or more general sectors in achieving load reductions. Each jurisdiction has a unique set of practices they intend to use to meet water quality standards. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0159.1.001.003

Author Name: Farasy Tom

Organization: Maryland State Builders Association

The costs associated with retrofitting existing communities is daunting-according to a report published by the Center for Watershed Protection the Urban Suburban are estimated to cost a median of \$88,000 per impervious acre (in 2006 dollars-or over \$100,000 in 2010 dollars); so we are talking about costs between \$18 Billion and \$20 Billion-versus costs using today's model of between \$42 Billion and \$48 Billion.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0159.1.001.004

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Thus far, the federal government has not appropriated the funding necessary to implement these new requirements. There has been no cost benefit analysis conducted and it is commonly accepted that these methods (urban retrofit) costs are an order of magnitude more costly than alternatives such as wastewater treatment plants upgrades. Most of the States will be unable to bear the cost burden without raising taxes. We need broad based programs to source the Bay Clean Up; we need also a balance of fiscal reality along with expected results.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0167.001.002

Author Name: Smith Sheryl

Organization: Adroit Solutions, Inc. (ASI)

Our local firm employs well-paid engineers, in jobs that cannot be outsourced overseas. Increases in clean water regulation would not only make Virginia a more attractive place to live, it also would help firms like ours stay healthy and profitable.

Response

Thank you for your support and comments.

Comment ID 0169.1.001.003

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

While it is unclear whether the EPA has any scientific basis for the proposed TMDLs, it is clear that imposition of the TMDLs will be ruinously expensive for localities. Actually meeting the TMDLs may be physically or fiscally impossible.

Response

EPA models have been able to show that it is feasible and possible to meet the TMDL allocations. Part of EPA's intent in working

with the jurisdictions in developing the Watershed Implementation Plans was to allow the individual jurisdiction to best choose how to meet the allocations of the TMDL. This would allow the individual jurisdiction to select the best course of action for the economics and the environmental quality. EPA and other federal agencies are providing increased funding to the Bay watershed as described in comment response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0169.1.001.008

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

Although a precise calculation of the cost of the proposed TMDLs is beyond the staffing and financial resources of the Town, one likely effect would be to prevent any development or redevelopment within the Town. The long term effects of that would be to strangle the Town's vitality. The short term effect would be litigation challenging the Town's ability to impose the draconian standards required under the TMDLs.

Response

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. The CWA Section 303(d) requires TMDLs to be established for impaired or threatened waters at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety. Federal regulations at 40 CFR Section 130.7(c) track the statute and require TMDLs to be developed at levels necessary to attain and maintain the applicable narrative and numerical water quality standard with seasonal variations and a margin of safety and that take into account critical conditions. TMDLs are to include wasteload allocations for each point source and load allocations for nonpoint sources. Neither the CWA nor EPA's implementing regulations require the state or EPA to consider the costs to implement the TMDL when establishing the TMDL at a level necessary to implement the applicable water quality standards. However, there are economic benefits to improving local water quality.

A study in the City of Philadelphia estimates that installation of green stormwater infrastructure in the city will raise property values 2 to 5 percent, generating \$390 million over the next 40 years in increased values for homes near green spaces (33). Reducing pollution inputs from pipes and landbased sources can reduce locality costs to treat drinking water sources to safe standards. New York City's expenditure of \$1 billion over the last decade to protect the watersheds north of the city that supply its drinking water avoided the need to build a \$6 billion treatment plant (39). An EPA study of drinking water source protection efforts concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs (40). Proactive efforts to lessen stormwater flows today reduce future public costs needed to maintain navigation channels, remediate pollution and hazard flooding, and repair infrastructure and property damage caused by excessive runoff.

33) Philadelphia Water Department. 2009. Green City, Clean Waters: The City of Philadelphia's Program for Combined Sewer Overflow Control—A Long Term Control Plan Update. Summary Report. September 1, 2009.

www.phillywatersheds.org/lcpcu/LTCPU_Summary_LoRes.pdf.

39) DePalma, A. 2006. New York's Water Supply May Need Filtering. New York Times. June 20, 2006.

www.nytimes.com/2006/07/20/nyregion/20water.html?_r=1&hp&ex=1153454400&en=2be183debc88eae7&ei=5094&partner=homepage&oref=slogin. Visited July 22, 2010.

40) U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki, EPA.

Comment ID 0182.1.001.002

Author Name: Rowland Jeremy

Organization: Bion Environmental Technologies, Inc.

The Chesapeake Bay models are the technical basis upon which EPA and state mandates for nutrient reduction are based. Unfortunately, these models are inaccurate as they relate to the quantification and impact from livestock waste. These errors prove costly to the rate/taxpayers that are paying the tab for this large scale remediation and they undermine the effectiveness of the effort.

Response

See response to 0182.1.001.004

In addition, there have been multiple studies that document the economic benefits to improving local water quality.

A study in the City of Philadelphia estimates that installation of green stormwater infrastructure in the city will raise property values 2 to 5 percent, generating \$390 million over the next 40 years in increased values for homes near green spaces (33). Reducing pollution inputs from pipes and landbased sources can reduce locality costs to treat drinking water sources to safe standards. New York City's expenditure of \$1 billion over the last decade to protect the watersheds north of the city that supply its drinking water avoided the need to build a \$6 billion treatment plant (39). An EPA study of drinking water source protection efforts concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs (40). Proactive efforts to lessen stormwater flows today reduce future public costs needed to maintain navigation channels, remediate pollution and hazard flooding, and repair infrastructure and property damage caused by excessive runoff.

33) Philadelphia Water Department. 2009. Green City, Clean Waters: The City of Philadelphia's Program for Combined Sewer Overflow Control—A Long Term Control Plan Update. Summary Report. September 1, 2009.

www.phillywatersheds.org/ltcpu/LTCPU_Summary_LoRes.pdf.

39) DePalma, A. 2006. New York's Water Supply May Need Filtering. New York Times. June 20, 2006.

www.nytimes.com/2006/07/20/nyregion/20water.html?_r=1&hp&ex=1153454400&en=2be183debc88eae7&ei=5094&partner=homepage&oref=slogin. Visited July 22, 2010.

40) U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki, EPA.

Comment ID 0182.1.001.008

Author Name: Rowland Jeremy

Organization: Bion Environmental Technologies, Inc.

Failure to correct these problems [see comments 0182.1.001.006 and .007] will undermine the possibility of successful, cost effective remediation not only in the Chesapeake Bay but throughout the U.S.

Response

See response to 0182.1.001.004. In addition see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality.

Comment ID 0182.1.001.013

Author Name: Rowland Jeremy

Organization: Bion Environmental Technologies, Inc.

This is a costly error for rate/taxpayers within the Susquehanna watershed because funding/financing/regulation are all derived from model outputs.

Response

Please reference response to 182.1.001.002

Comment ID 0182.1.001.018

Author Name: Rowland Jeremy

Organization: Bion Environmental Technologies, Inc.

Such mis-focused reduction efforts will (and have in the past) create significantly greater costs to the tax and rate payers of Pennsylvania.

Response

Please reference response to 182.1.001.002.

Comment ID 0183-cp.001.005

Author Name: Owens James

Organization: Harvey Lindsay Commercial Real Estate

The additional allocations required by the draft TMDL after returning to the equitable distribution recommended by the SAG should be met through WTPs.

Response

Thank you for your suggestions on the allocation of loads in the final TMDL. To see the final allocations please see Section 9, Appendix Q and for daily loads see Appendix R, of the final TMDL document for how loads were assigned by major river basin and by sector.

Comment ID 0183-cp.001.006

Author Name: Owens James

Organization: Harvey Lindsay Commercial Real Estate

The urban/suburban sector will have to pay these WTP costs as well but at far less cost than requiring urban retrofits beyond the levels already included in the SAG WIP. The greatest burden of this requirement for additional urban retrofits will fall on VDOT and therefore the state itself.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 for a discussion of public sector point sources.

Comment ID 0191.1.001.002

Author Name: Smith Robert

Organization: Farm Credit East, ACA

Our family farm operations simply do not have the financial capacity to make further unnecessary changes on their farms to comply with what amounts to unfair, inequitable and unattainable requirements. Many dairy farms in this area incurred extensive financial losses in 2009 - it will take years for many of these farms to recover.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0191.1.001.004

Author Name: Smith Robert

Organization: Farm Credit East, ACA

An EPA requirement for further actions will force more farmers out of business resulting in increased unemployment, reduced tax base and a significant further decline in economic activity in this region.

New York has already seen a dramatic decline in dairy farmers over the past 20 years as marketplace pressures and governmental regulatory requirements have reduced industry viability.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 regarding agricultural funding. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. For an additional response specific to New York please see comment 0080-cp.001.002.

Comment ID 0192.1.001.002

Author Name: Comment Anonymous

Organization:

New York State and local officials have said that making the reductions proposed by EPA for New York is not possible. Additionally, the New York State Department of Environmental Conservation (NYSDEC) has estimated that implementing the wastewater treatment plant upgrades and agricultural pollution controls programs that EPA's draft

TMDL regulations would require, could cost the state and local taxpayers several billion dollars.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0193.1.001.001

Author Name: Newsome Michael

Organization: Home Builders Association of Virginia (HBAV)

HBAV is a 4,300 business organization of home builders and companies that provide products and services to the housing industry in Virginia. As you may know, the home building industry and its numerous construction and retail partners in Virginia are currently experiencing the 5th straight year of an historic downturn in production and sales - a fact contributing significantly to unemployment throughout the Commonwealth. Unfortunately, prospects for improvements in the housing industry in 2011 are dim.

As such, we are astonished, that during this difficult economic period for the nation and Virginia, we find our industry along with numerous Virginia businesses, local governments, farmers and the Commonwealth itself facing an unprecedented and unfunded Federal mandate - an untenable TMDL for the Chesapeake Bay. Regrettably, the EPA has chosen not to conduct cost analysis for the Bay TMDL, and we believe this mandate will not only extend the so-called jobless recovery period, but expand it into many other sectors of the state's economy.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0194.1.001.006

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

If "limit of technology" is applied, you will see some sewage bills double, triple or go even higher. For those on fixed incomes, such as the elderly, this is a slap in the face.

Response

Please see the response to comment 0501.1.001.005 for discussion of public sector point sources and the response to comment 0067.1.001.009 for discussion of WIP backstops.

Comment ID 0194.1.001.010

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

Just because there is no statutory responsibility to conduct a cost benefit analysis of a TMDL does not mean one should not have been done. Far smaller projects have cost/benefit analyses completed. This seems to be cast as, whatever the cost is so be it! This again is where non-point BMPs should be pursued rather than a new point source strategy. EPA seems to have elevated the Chesapeake Bay over other important issues facing Pennsylvania and the other states.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0199.1.001.010

Author Name: Frederick Thomas

Organization: Rivanna Water & Sewer Authority

What is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that we at local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years).

We believe that in our current difficult economy, the public would be outraged if they fully understood the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0200.1.001.001

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

Many presentations by Federal and State officials have referred to the Bay TMDL as a pollution diet, where the maximum amount of a pollutant the Bay can receive is determined while still meeting water quality standards. In many ways, local governments are dealing with a similar diet situation associated with their operations. During limited economic times, the County's fiscal and resources diet determines the extent of requirements, programs, and projects that can be achieved within the constraints of significantly reduced inputs. Local governments are operating very lean, with falling revenue, limited resources, and reduced staffing. The future local "diet" appears to look more questionable than promising.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources.

Comment ID 0202.1.001.001

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

II. COST, FINANCIAL, AND COMMUNITY GROWTH IMPACTS

A. Costs

The cost to convert/upgrade each of the significant WWTPs in New York State to nutrient removal capabilities would be substantial. As per the NYSDEC's Tributary Strategy, an overall project cost of \$200 million was estimated in 2006, to upgrade each of the 28 significant WWTPs within New York State. Assuming a 5.5 percent increase in construction costs per year since 2006, a rough overall project cost (in 2010 dollars) is around \$250 million. Beginning in 2007, the Binghamton-Johnson City Joint Sewage Facility was upgraded for nitrogen removal for a project cost of approximately \$70 million, which equated to roughly \$2300 per equivalent dwelling unit (EDU).

In addition to the project costs, the annual operation and maintenance (O&M) costs would also be expected to increase on the order of 50 to 70 percent for a typical upgraded WWTP, due to increased electric, treatment chemicals, and increased sludge production. For the Binghamton-Johnson City Joint Sewage Facility, annual O&M costs increased by roughly 65 percent since 2006, for nitrogen removal (excluding phosphorus removal). This equates to an ongoing cost to be borne by local rate payers, including senior citizens on fixed incomes, businesses, and industries.

B. General Economic Climate

There has been a general loss of industrial base and population in the New York State portion of the Chesapeake Bay over the last 25 years. Loss of jobs and population is also reflected in the rather high percentage of population falling below the poverty line (about 22 percent). Furthermore, the median age of upstate New Yorkers is 37.5, more than two

years older than the nation as a whole. By 2020 the upstate New York population will reach a median age of 40. Presently, one in four of the region's households contain people aged 65 or older.

C. Financial & Community Growth Impacts

As it now stands, the pending TMDLs will place burdensome, unfunded mandates on the municipalities with a significant WWTP, and may force tax or rate increases to citizens to balance strapped municipal budgets. Many of our citizens are on fixed incomes with little ability to absorb additional expenses.

Furthermore, the cost of these requirements would further add to New York State's already stifling business environment, increasing the cost of doing business in a State with a high level of taxation. As you are aware, the high level of taxation and ongoing cost of doing business in New York State is evident in the number of companies who have fled to other, more accommodating states, not to mention overseas.

As an example, this could financially impact the treatment plant for Pollio Dairy in Campbell, New York, as well as existing municipal wastewater treatment plants that receive a portion of their waste stream from dairy operations, such as the Village of Waverly and the City of Hornell. Also, the expansion of existing industries and the development of new industries could be thwarted, depending upon the nature of their respective wastewaters.

Response

Please see the response to comment 0501.1.001.005 for discussion of public sector point sources and response to comment 0067.1.001.009 addressing WIP backstops.

Comment ID 0203.1.001.005

Author Name: Weindel Uwe

Organization: Frederick County Sanitation Authority

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0208-cp.001.002

Author Name: Comment Anonymous

Organization: Natural Resources Defense Council (NRDC)

The economy depends on it. Stricter controls are needed. Somethings can be done right away at little cost. The cost of these plans, will by far pay off for all of us.

Response

Thank you for your comments.

Comment ID 0211.1.001.005

Author Name: McCarthy R.

Organization: Town of Erwin, New York

it is now projected to cost New York State as much as \$250 million over the next 15 years to retrofit and reconstruct existing infrastructure as a result of the EPA proposed limits, and

WHEREAS, it is not technologically possible for New York State to meet the EPA's proposed regulatory goal despite the expenditure of an estimated \$250 million; and

WHEREAS, New York State will not benefit economically from recovery of the Bay and therefore will receive no return on the estimated \$250 million to retrofit and reconstruct existing infrastructure as a result of the EPA proposed limits,

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

For an additional response specific to New York please see comment 0080-cp.001.002.

Comment ID 0211.1.001.007

Author Name: McCarthy R.

Organization: Town of Erwin, New York

the EPA's proposed TMDL regulation will require using State and Local conservation efforts and force unrealistic costs on the businesses, governments and residents within the Watershed area;

Response

EPA reminds the commenter that the TMDL is not a Federal regulation. Please see comment 0139.1.001.017, which speaks to the fact that the cost of the TMDL cannot be determined at this time.

Comment ID 0211.1.001.014

Author Name: McCarthy R.

Organization: Town of Erwin, New York

the EPA's discriminatory, regulatory process disproportionately burdens New York State farm communities with costly mandates, weakens our rural economies, disrupts local food systems and provides no significant additional water quality protection for the Chesapeake Bay Watershed; and

WHEREAS, the EPA has failed to conduct a comprehensive environmental impact analysis of the implementation of TMDL including but not limited to assessment of socioeconomic related impacts,

Response

EPA reminds the commenter that the TMDL is not a Federal regulation.

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

For an additional response specific to New York please see the response to comment 0080-cp.001.002 and the response to comment 0267.1.001.006.

Comment ID 0212.1.001.004

Author Name: Greenland Victoria

Organization: Arlington County, Department of Environmental Services, Virginia

Beyond the question of whether the TMDL is ultimately feasible are the significant capital and operating resources that will be required to expand local stormwater programs. Arlington County established a dedicated tax in 2008 that generates approximately \$7 million annually to fund a comprehensive stormwater program, half of which is dedicated to watershed management and water quality initiatives. The County's capital improvement program from fiscal years 2011 through 2016 contains \$3.4 million for stormwater retrofit projects and \$2.6 million for stream restoration projects. These represent significant financial commitments to local water quality protection and the goals of the Bay TMDL.

Based upon estimated retrofit costs and the lower end of the Bay TMDL urban retrofit requirement of 30 percent to 50 percent of urban land, we estimate it would cost Arlington approximately \$500 million through 2025, or \$33 million per year, to comply with the Bay TMDL's unrealistic implementation schedule. This would require roughly a five-fold increase in the County's stormwater tax rate, and these estimates do not include a significant increase in staff and related operating expenses that will be required for planning, design, project management, and maintenance.

Given the current economic situation, it is vital that EPA and DCR consider the total costs of any regulatory approach in order to develop a cost-effective and equitable strategy for improving the Bay. For example, in 2003, well before TMDLs and the limit-of-technology (LOT) being considered for permit limits to address the nutrient and other challenges of the Chesapeake Bay were established, Arlington County committed to a \$568 million capital investment to upgrade its wastewater treatment plant ("WWTP"). The WWTP recently completed the major components of this upgrade and is currently discharging below the LOT for total nitrogen of 3 mg/L (averaging approximately 2.3 mg/L since June 2010).

This highly successful capital project clearly illustrates Arlington County's commitment to reducing its contribution to the Bay's nutrient problem and meeting stringent regulatory requirements, but this extensive capital upgrade also resulted in substantial increases in the water and sewer rate for Arlington residents. This rate has increased 145 percent over an 8 year period, from \$4.58 per thousand gallons in FY 2002 to \$11.20 per thousand gallons in FY 2010.

Arlington County also established a dedicated 'stormwater tax' in FY 2008 at a rate of \$0.01 per \$100 of assessed real estate value to support an expanded stormwater management program. In FY 2010, this rate was raised to \$0.013 per \$100 of assessed real estate value.

Response

EPA hears your concerns and thanks you for your comments on the draft TMDL and the efforts to address stormwater in your county. Please see the response to comment 501.1.001.005 for a discussion of public sector point sources and the response to comment 0067.1.001.009 addressing WIP backstops.

Comment ID 0213.1.001.010

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

Proposed Backstop Allocations Direct Affect on HRWTF and the City of Hopewell: The cost of meeting 8 mg/l (LOT for HRWTF) is estimated in 2010 dollars to be \$73 million. If we have to add filters to meet TSS and phosphorus allocations, it is estimated that the cost could be as much as \$91 million. The City of Hopewell is a small city with a poverty rate of 18.3% and an unemployment rate of 10.3%; 14 highest in the Commonwealth of Virginia. To fund our \$30 million wastewater project currently under construction, the sewer rate in the City of Hopewell was increased by 69% in July of 2009. If we had to raise our sewer rates by 69% to fund a \$30 million project, how much of an increase will it take to fund a \$73 or \$91 million project?

In spite of the enormous capital costs, the bigger issue is the annual operation and maintenance costs. Very often partial grant funding is available to help offset the capital cost; however, there is no grant funding available to offset the yearly O&M costs. Our current O&M costs are \$9 million. If we are forced to meet the proposed backstop allocations in the TMDL, the estimated increase in O&M costs is \$5 to \$6 million/year. We do not believe that this much of an increase will be sustainable for the City or for the Hopewell industries or citizens.

Response

Please see the response to comment 501.1.001.005 addressing public sector point sources and the response to comment 0067.1.001.009 for discussion of WIP backstops.

Comment ID 0217.1.001.006

Author Name: Pozgar David

Organization: Logan Township

EPA cannot provide “Reasonable Assurance” that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

The existence of the NPDES regulatory program and the issuance of an NPDES permit(s) provide the reasonable assurance that the WLAs in the TMDL will be achieved. That is because federal regulations implementing the CWA require that effluent limits in permits be consistent with “the assumptions and requirements of any available [WLA]” in an approved TMDL [40 CFR 122.44(d)(1)(vii)(B)].

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources. With regard to WIP backstops, please see the response to comment 0067.1.001.009.

Comment ID 0218.1.001.005

Author Name: Wright Ronald

Organization: Borough of Everett Area Municipal Authority, Bedford County, Pennsylvania

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources. EPA allowed jurisdictions the opportunity to develop a Watershed Implementation Plan that meets the TMDL allocations. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to comment 0139.1.001.017.

Comment ID 0219.1.001.002

Author Name: Cary Russell

Organization: Madison County, New York

WHEREAS, the federally-designed TMDL, intended to limit nitrogen, phosphorous and sediment discharges into the Chesapeake Bay watershed, is now projected to cost New York State as much as \$250 million over the next 15 years, without being able to satisfy EPA's regulatory goal; and

Response

Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0219.1.001.004

Author Name: Cary Russell

Organization: Madison County, New York

WHEREAS, we object to EPA's discriminatory regulatory process that disproportionately burdens our farm communities with costly mandates, weakens our rural economies, disrupts local food systems and provides no additional water quality protection for the Chesapeake Bay watershed;

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. For responses specific to New York please see the response to comments 0080-cp.001.002 and 0267.1.001.006.

Comment ID 0219.1.001.006

Author Name: Cary Russell

Organization: Madison County, New York

WHEREAS, each and every day farmers across New York work to improve their environmental sustainability recognizing that appropriate natural resource management is critical to maintaining success of their businesses for future generations; supporting farmers in these endeavors is how government can best aid agriculture in protecting water quality; and

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 regarding agricultural funding.

Comment ID 0223.1.001.004

Author Name: Hazenstab Robert

Organization: Duncansville Municipal Authority

5. If Backstop TMDL's become official, 100% grant funding and assistance with operation and maintenance costs increases is needed. Will the Federal government step up and provide this? Where will these funds come from? Further taxes on the general population to pay for this is merely squeezing the same Duncansville sewer customer as a sewer rate increase.

6. In Pennsylvania, we are facing significant electric power and natural gas rate increases in January 2011. These will drastically impact our annual treatment plant operational expenses and require sewer rates to rise just due to that. Furthermore our sewer customers will see these same electric and gas rate increases on their own home and business utility bills.

Response

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. EPA does not dispute the costly nature of improving water quality in the Bay watershed. EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Please see the response to comment 0067.1.001.009 and Section 8 of the TMDL addressing WIP backstops. While EPA has no control over how utility rates are increased we appreciate your comments to recognize this possibility.

Comment ID 0224.1.001.004

Author Name: Fiala Barbara

Organization: Broome County Executive's Office

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier as farms close rather than bear the cost of compliance, and economic development is hindered by an additional cost of doing business.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0225.1.001.001

Author Name: Locke Latana

Organization: Fredericksburg Area Association of Realtors (FAAR)

FAAR is strongly supportive of efforts to restore and protect the Chesapeake Bay and its tributaries. We are blessed in the Fredericksburg area to have easy access to the Rappahannock and Potomac rivers and the health of these resources is vital to the local economy. However, FAAR has serious reservations about some proposals and their benefits as opposed to the costs they will impose on homeowners as well as state and local governments.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. EPA allowed jurisdictions the opportunity to develop a Watershed Implementation Plan that meets the TMDL allocations. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to comment 0139.1.001.017.

Comment ID 0225.1.001.004

Author Name: Locke Latana

Organization: Fredericksburg Area Association of Realtors (FAAR)

It will be extremely costly for existing developments to install the required stormwater controls and the benefits to be gained by these expensive retrofits do not justify the costs. In addition, requiring retrofits on existing infrastructure such as roads and parking lots will be extremely costly for the government and businesses and very disruptive to the community.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0226.1.001.007

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

We believe the proposed TMDL may be unachievable and will result in disproportionate expenditures for some control measures with marginal returns in commensurate pollution reduction or environmental improvement. It is important that we spend our limited resources in a targeted and effective manner.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0227.1.001.022

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

Congress has recognized that the Chesapeake Bay is a "national treasure and resource of worldwide significance." [FN 23] Valued at over 1 trillion dollars, a restored and protected Chesapeake Bay is essential for a healthy and vibrant regional economy. Failure to "save the bay" threatens this economic driver and, in fact, economic losses have already occurred due to water quality degradation throughout the watershed. More importantly, investing in clean water technology creates jobs, generates economic activity, and can save money in the long run.

[FN 23] Chesapeake Bay Restoration Act of 2000, Nov. 7, 2000, P.L. 106-457, Title II, § 202, 114 Stat. 1967.

Response

EPA hears the concerns of the commenter. Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0227.1.001.023

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

Perhaps no other creature better exemplifies the Chesapeake Bay than the blue crab, *Callinectes sapidus*. For more than a half century, the blue crab has been at the apex of the Bay's commercial fisheries. Over one-third of the nation's blue crab harvest comes from the Chesapeake Bay. The average annual commercial harvest in Maryland and Virginia between 1999 and 2008 was about 55 million pounds. [FN 24] The dockside value of the blue crab harvest Bay-wide in 2008 was approximately \$ 70 million. [FN 25] The recreational fishery also provides a significant financial off-set for Bay residents - the cost of catching crabs is far less than having to buy them.

The overall trend, however, since the 1990's has been a decrease in landings despite increased crabbing effort. [FN 26] In addition, the number of crabs one year and older dropped from 276 million in 1990 to 131 million in 2008. [FN 27] When the broader impact on restaurants, crab processors, wholesalers, grocers, and watermen is added up, the decline of crabs in the Bay meant a cumulative loss to Maryland and Virginia of about \$640 million between 1998 and 2006. [FN 28]

As a result of the low population level, in 2008, Maryland and Virginia issued severe crabbing restrictions, in an attempt to restore the population. These restrictions placed severe economic hardship on Chesapeake Bay crabbers. In

response, members of Congress from Maryland and Virginia requested federal disaster relief for Bay crab fishermen. In September, 2008, the Secretary of Commerce determined that the Chesapeake Bay soft shell blue crab fishery had undergone a commercial failure as defined under the Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1861). In January 2009, the Department of Commerce allocated \$10 million of disaster relief to each state. This was a substantial taxpayer expense that will not be needed in the future if the Bay is restored to its former health.

In 2009, the number of spawning-age crabs rebounded to 223 million.[FN 29] Nonetheless, poor water quality continues to limit crab populations in the Chesapeake Bay. On average, over the last 10 years, more than 75% of the Chesapeake Bay and its tidal rivers have had insufficient levels of dissolved oxygen. [FN 30] Low oxygen levels drive blue crabs from their preferred habitat and kill many of the small bottom organisms on which the blue crabs feed. [FN 31] The low dissolved oxygen conditions caused by excess nutrients are the primary reason large sections of the Bay have become unsuitable as blue crab habitat. In addition, a study by the University of Maryland demonstrated that decreases in dissolved oxygen can reduce crab harvests and revenue to watermen.[FN 32]

Poor water clarity also has impacted crab populations. Poor water clarity has reduced the amount of underwater grasses necessary to protect juvenile crabs, molting crabs, and adults from predation. Studies have shown that crabs living in areas with little or no underwater grasses suffer higher mortality.[FN 33] Water clarity in the Bay has been decreasing since the 1990s and in 2009, only 26% of the Bay had acceptable water clarity. Until water quality improves, the blue crab population will not fully recover.[FN 34]

Another critical Bay species, commercially, recreationally, and as an important part of the Bay ecosystem, is the oyster. From the 1800s to the mid-1900s, the commercial oyster industry employed thousands of people catching, selling, shucking, and shipping oysters to market. Hundreds of skipjacks, sail powered dredges, plied the waters of the Bays in search of the delectable oyster. The industry generated millions of dollars a year to the Bay economy. Until the mid-1980s, the oyster was the leading commercial fishery in the Bay. Like the blue crab, Bay oysters spawned a rich cultural heritage.

In addition to their commercial and recreational value, oysters improve water quality because they are filter feeders. An individual oyster pumps over 50 gallons of water a day through its gills which strains out food, chemicals, nutrients, and sediment. In addition, oyster reefs provide valuable habitat for countless Bay creatures, most notably finfish, and serve as popular fishing areas.

Unfortunately, a combination of overharvesting, disease, and poor water quality has decimated the oyster populations in the Chesapeake Bay to around 1% of historic levels. Silt washed by rain from urban areas and agricultural fields can bury oyster beds, particularly those that have been flattened by dredges.[FN 35] Extended periods of zero oxygen conditions can be fatal to oysters.[FN 36] In addition, recent studies have indicated that low oxygen levels can stress the immune systems of oysters, making them more susceptible to disease.[FN 37] Pollution has also resulted in the closure of shellfish beds to commercial harvesting. Threats from sewage and bacteria forced Maryland and Virginia to close or restrict oyster harvesting in 223,864 acres of the Bay and its tributaries in 2008, about 8 % of the total shellfish beds.[FN 38] The decline of the Bay oyster over the last 30 years has meant a loss of more than \$4 billion for Maryland and Virginia.[FN 39]

The rockfish (also known as striped bass) has been and remains the most popular commercial and recreational fish in the Bay, generating roughly \$500 million of economic activity related to fishing expenditures, travel, lodging, etc. [FN 40]

Faced with a catastrophic collapse in the fishery, commercial and recreational fishing for rockfish were banned in the Maryland portion of the Bay from 1985-89 and in Virginia during 1989.[FN 41] The dramatic decline of the population was due to several factors including overfishing and low dissolved oxygen in deeper parts of the Bay. Today, the rockfish population is at its highest in decades. However, scientists are concerned about the high prevalence of disease which has been attributed to poor water quality and limited availability of its preferred prey.[FN 42]

In its entirety, the fisheries industry is a significant part of local economies. The 2008 Fisheries Economics of the U.S. report by the National Oceanic and Atmospheric Administration (NOAA) indicates that commercial seafood industry in Maryland and Virginia contributed \$2 billion in sales, \$1 billion in income, and more than 41,000 jobs to the local economy.[FN 43] In addition there are indirect benefits to the economy in terms of jobs and work created for those who sell fishing tackle, maintain and repair boats and equipment and provide other related goods and services.

The economic benefits of saltwater recreational fishing are equally as impressive, contributing \$ 1.6 billion in sales which in turn contributed to more than \$ 800 million of additional economic activity and roughly 13,000 jobs.[FN 44] The majority (90 - 98%) of the commercial and recreational saltwater landings in this region come from the Chesapeake Bay.[FN 45]

The economic losses associated with the decline in fisheries resources in the Bay are substantial. Between 1994 and 2004 the value of Virginia's seafood harvest decreased by 30% [FN 46] with Maryland's commercial landings exhibiting a similar decline during that time.[FN 47] Further, between 1993 and 2009 the number of Bay watermen declined from around 14,000 to 1,500.[FN 48 49]

A 2001 study compared the 1996 water quality of the Bay with what it would have been without the Clean Water Act. Results indicated that benefits of water quality improvements to annual recreational boating, fishing, and swimming ranged from \$357.9 million to \$1.8 billion.[FN 50] Fisheries declines since the 1990s indicates that early progress reducing pollution hasn't been sustained - we must reverse this trend.

These economic impacts are not restricted to the tidal regions of the Bay watershed. According to the Pennsylvania Fish and Boat Commission (PFBC), nearly 2 million people go fishing in Pennsylvania each year, contributing over \$ 1.6 billion to the economy. Among the most popular species for anglers are smallmouth bass and coldwater species, such as brook trout. The PFBC recently passed a proposal to be enacted Jan. 1 that mandates total catch-and-release of smallmouth bass in certain areas of the Susquehanna River because of population declines associated with water quality problems. Degraded stream habitat has restricted brook trout to a mere fraction of its historical distribution.

Virginia, and to a lesser extent Maryland, also support significant freshwater recreational fisheries, with roughly 1 million anglers participating and contributing millions to local economies[FN 51].By way of example, a fish kill in the Shenandoah River watershed in 2005, likely caused by a variety of factors including poor water quality, resulted in roughly a \$700,000 loss in retail sales and revenues.[FN 52]

If pollution to the Bay is left unabated, we will see more continued decline of the region's fisheries and the resulting economic impacts. In short, we cannot afford not to clean up the Bay. The comparatively modest up-front investments in doing so will pay enormous long term dividends to the entire watershed and its 17 million residents.

Unhealthy Waters Hurt Public Health and Local Economies

Unhealthy waters increase public health burdens associated with consuming tainted fish or shellfish or exposure to waterborne infectious disease while recreating. For example, one study estimated the cost associated with exposure to polluted recreational marine waters to be \$37 per gastrointestinal illness, \$38 per ear ailment, and \$27 per eye ailment due to lost wages and medical care.[FN 53] Furthermore, although closing a beach is meant to prevent illness, it directly and indirectly results in an economic loss for local businesses and the county where the beach is located. For example, a study by NOAA indicated that a one day beach closure in Huntington Beach, California was expected to result in thousands of dollars of lost income for local communities.[FN 54] There are hundreds of beach closures in the bay region each year,[FN 55] potentially resulting in hundreds of thousands of dollars of lost income for local economies.

Nature Based Recreation: Vital Economic Drivers for the Bay Region

Roughly 8 million wildlife watchers spent \$ 636 million, \$960 million and \$1.4 billion in Maryland, Virginia and Pennsylvania, respectively in 2006 on trip-related expenses and equipment.[FN 56] These estimates do not include other economic benefits of these expenditures such as job creation and the multiplier effect on local economies. Improvements to water quality, as well as the implementation of actions, such as afforestation, land preservation, and wetlands restoration, that will lead to improved water quality, will increase and enhance wildlife populations. A study in the Great Lakes indicates there would be substantial improvement in wildlife watching opportunities and associated economic benefits by improvements to wildlife habitat.[FN 57]

Recreational boating is also a strong economic driver in Maryland, Pennsylvania and Virginia. The total impact on the Maryland economy from recreational boating is estimated to be about \$2.03 billion and 35,025 jobs.[FN 58] Similarly, Pennsylvania residents spend \$1.7 billion on boating annually. The average expenditure per recreational boater is \$274. Of this amount, roughly \$113 a year is spent in direct boating-related expenses and \$161 is spent on trip-related expenses, including: auto fuel, meals, lodging and admission/entrance fees.[FN 59]

A recent study in Hampton, Virginia found that resident and non-resident boaters were responsible for \$55.0 million in economic impact to this city. This impact represents \$32.5 million in new value added, \$22.2 million in incomes and 698 jobs. [FN 60] The majority of expenditures were by out-of-region boating-visitors which represents an inflow of "new" capital into the community. The study also indicated that "water quality, fishing quality and other environmental factors" ranked among the most important, in terms of factors that influence a boater's decision on where to keep his/her boat.

Investment in Clean Water Technologies Stimulates Local Economies.

A study by the University of Virginia found that implementation of the agricultural practices such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts.[FN 61] Every \$1 of state and/or federal funding invested in agricultural best management practices would generate \$1.56 in economic activity in Virginia. Implementing agricultural practices, in Virginia, to the levels necessary to restore the Bay would create nearly 12,000 jobs of approximately one year duration.

A recent analysis of the value of investing in water and sewer infrastructure concluded that these investments typically yield greater returns than most other types of public infrastructure.[FN 62] For example, one dollar of water and sewer infrastructure investment increases private output (Gross Domestic Product) in the long-term by \$6.35. Furthermore, adding 1 job in water and sewer creates 3.68 jobs to support that job.

More specifically, upgrading sewage treatment plants across the watershed has created hundreds of construction jobs, and will create perhaps thousands more as the program begins to grow. Also, upgrading individual septic systems has employed installers, electricians and others involved in the business. These upgrades have pumped millions of dollars into the local economy. A real life example is Mayer Brothers, Inc. in Elkridge, MD.[FN 63] This company staved off significant layoffs this year when the small manufacturing company won a contract from the Maryland Department of Environment to help supply new septic technology throughout Maryland.

On the flip side, cuts to funding programs for clean water infrastructure will lead to job losses. Carter B. McCamy says he will probably have to lay off over 20 workers from his Arbutus, Maryland company if the Maryland legislature cuts the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund.[FN 64] McCamy is CEO of Environmental Quality Resources, LLC, an environmental construction company that specializes in stream restoration, wetland mitigation, reforestation, shoreline stabilization and storm water management. The firm has received significant contracted work through the Trust Fund. He employs 115 full-time workers, and also supports an additional 100 subcontractors who provide trucking materials, concrete, paving and fencing required for stormwater mitigation projects.

Clean Waterways Increase Property Values

An EPA study indicated that clean water can increase the value of single family homes up to 4,000 feet from the water's edge by up to 25%.[FN 65] A 2000 study concluded that improvements in water quality along Maryland's western shore to levels that meet state bacteria standards could raise property values 6%.[FN 66] High water clarity was shown to increase average housing value by 4 to 5% or thousands of dollars. [FN 67 68] Homes situated near seven California stream restoration projects had 3 to 13% higher property values than similar homes located on damaged streams.[FN69] A study by the Brookings Institute projected a 10% increase in property values for homes that would about a proposed \$26 billion Great Lakes restoration project.[FN 70] The City of Philadelphia estimates that installation of green stormwater infrastructure in the city will raise property values 2 to 5 percent generating \$390 million over the next 40 years in increased values for homes near green spaces.[FN 71]

Pollution Reductions Lower Drinking Water and Utility Costs

Reducing pollution inputs from pipes and land-based sources can reduce locality costs to treat drinking water sources to safe standards. New York City's expenditure of \$1 billion over the last decade to protect the watersheds north of the city that supply its drinking water avoided the need to build a \$6 billion treatment plant.[FN 72] An EPA study of drinking water source protection efforts concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs.[FN 73] Similarly, a study by the Brookings Institute suggested that a 1% decrease in sediment loading will lead to a 0.05% reduction in water treatment costs.[FN 74]

Proactive efforts to lessen stormwater flows today reduce future public costs needed to maintain navigation channels, remediate pollution and hazard flooding, and repair infrastructure and property damage caused by excessive runoff. Philadelphia estimates that after 40 years their installation of green infrastructure will create more than \$2 in benefits for every dollar invested, generating \$500 million in economic benefits, \$1.3 billion in social benefits, and \$400 million in environmental benefits.[FN 75]

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Response

EPA supports the statements presented in your comment which highlight the water quality and economic benefits of the fauna of the Bay watershed and the overall economic benefits of improved water quality in the Bay and the local waterways in the watershed.

Comment ID 0229-cp.001.004

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

DEP's WIP fully addresses the necessary steps for Pennsylvania to be compliant. The committee also believes that the EPA's backstop TMDL will only cause more economic distress on the business community and ratepayers across the state.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0229.1.001.001

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The WIP allows sources to meet DEP's Chesapeake Bay Strategy pollution limits through a combination of technology investment and the use of nutrient trading and offsets. For example, the compliance strategy of the region's largest sewage treatment plant, The Harrisburg Authority's Advanced Wastewater Treatment Facility, is estimated to cost \$35 million to construct, an additional \$1.8 million to operate, and million annually to purchase nutrient credits. This approach will result in an estimated \$90 per year increase in user rates, which represents a 40% increase.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0230.1.001.007

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). HRSD is in the final stages of completion of three major facility upgrades for nutrient removal totaling over \$150 million with a fourth facility undergoing a \$108 million upgrade for nutrient removal. These facilities designed and constructed to meet the EPA-approved Virginia Regulations, have not even come on-line providing no opportunity to measure the effectiveness of these significant nutrient reduction projects on water quality. Unbelievably, the Draft TMDL proposes significant changes to these same facilities.

EPA's Draft TMDL fails to acknowledge these efforts and the associated financial burden that has been placed on HRSD ratepayers. A disproportionate amount of the cost to clean up the Chesapeake Bay has been borne by the current residents within the Chesapeake Bay watershed that are connected to centralized sewage treatment facilities. The provisions included in the EPA Draft TMDL will continue to support this environmental injustice and financial inequity.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns. EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0230.1.001.010

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

In order to meet the requirements of the Nutrient Management Regulations of 2005 HRSD has plans to install or enhance exist nutrient removal at Army Base, James River, Nansemond, and York River treatment plants. These projects will reduce 2008 total nitrogen (TN) loadings by approximately 2.5 million lbs/yr at a capital construction cost of over \$400 million. Although Virginia provided over \$90 million of Water Quality Improvement Fund grants, HRSD ratepayers saw rates increase significantly over that period to fund the balance of the program. Despite the challenges created by the high costs and very short implementation schedule, HRSD will meet the 2005 waste load allocations by the compliance date of January 2011. Because these engineering studies, public contracts, and expensive construction projects are already underway the EPA must not suddenly override Virginia's new regulations and disrupt the State's plans, especially for wastewater treatment plants.

To comply with the TMDL as proposed, HRSD would require an investment in excess of \$693 million, in addition to the \$1.4 billion already required to replace and modernize aging infrastructure over the next 20 years. As a result, HRSD ratepayers would see double digit rate increases averaging 13 percent over the next five years. An average single family customer would see their annual sewage treatment bill rise from the current \$270 per year to over \$600 per year by 2025.

HRSD is fully committed to doing what is necessary to restore the Chesapeake Bay. HRSD has a history of full compliance with all environmental regulations and is prepared to do what is necessary to comply with the TMDL. Implementation will be very expensive, in excess of \$693 million, borne by the citizens of Hampton Roads. The return on that investment, however, remains highly questionable.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0230.1.001.028

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

B. Economic Development

Preserving current POTW allocations is also imperative for future healthy economic growth. Adequate sewer capacity is a critical part of future economic growth. If EPA's POTW allocations cuts stand, POTWs will not have the ability to serve additional customers, no matter their importance for Virginia's economic recovery.

While EPA points to the possibility of acquiring "offsets," the fact is that offsets are not widely available and thus not a viable option in Virginia on any meaningful scale. Further, offset development is only in an early developmental stage and is very expensive to implement.[FN40] To the extent that EPA believes POTWs will be able to avail themselves of non-point source offsets and thus be in a position to provide treatment capacity to new customers, HRSD responds that offsets are not widely available at the present time and thus do not represent a viable option for planning, financing or constructing major public infrastructure.

[FN40] Brent Fults, Managing Member of the Chesapeake Bay Nutrient Land Trust, LLC, a Virginia non-point source nutrient bank, gave testimony before the U.S. Senate, Committee on Environment and Public Works, Water and Wildlife Subcommittee on August 3, 2009 (attached as Appendix 21). According to Fults, "the costs associated with reducing nutrient loading by one pound from an acre of farmland can run into the thousands of dollars." This is because owners of agriculture land expect compensation for the costs of land conversion from agricultural use to forest plus the lost opportunity costs for not farming or developing the converted farmland.

Response

As explain in Section 10 of the TMDL, EPA expects Chesapeake Bay jurisdictions to account for and manage new or increased loadings of nutrients and sediment. Appendix S provides information regarding the development and implementation of offsets. EPA believes that offsets supported by credible and transparent offset programs are a viable approach to accommodate new or increased loadings within the watershed. The commenter's statement that "offsets are not widely available" may be accurate at this point in time. However, EPA believes that during the implementation of the TMDL, jurisdictions will be developing offsets programs and offset credits will be generated by many sources over time. In addition, offset credits can and should be generated by the source who is seeking additional loading capacity.

With regards to the testimony of Brent Fults, Managing Member of the Chesapeake Bay Nutrient Land Trust, LLC, EPA does not expect nor encourage that farmland be converted from agricultural use to forest. EPA anticipates that farmers will reduce their nutrient loads from their farms by choosing among many possible BMPs. For example, BMPs may be as simple as fencing livestock out of streams and ponds or choosing to convert to rotational grazing operations.

Comment ID 0231.1.001.007

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

UOSA has already invested \$1.8 million in the design of the secondary treatment upgrades (a subset of a \$94 million nutrient reduction capital project) to be able to meet the TN WLA of 1.316 million pounds/year (based on 8 mg/L and 54 mgd) as flows increase. Reducing the UOSA TN WLA, as shown in the EPA Bay Draft TMDL, would require a delay and additional costs to allow UOSA to re-direct and re-start the design process. Such a re-direction would be a waste of scarce public funds and, as explained above, would be contrary to the protection of the Occoquan Reservoir, the Potomac River and the Chesapeake Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0240-cp.001.001

Author Name: Wilson Ed

Organization: Quincy Township

As a Wastewater plant operator I do not know how we will meet the TMDLs proposed by EPA. The cost to upgrade plants will be exorbitant and to pass them on to the users won't work. It would cost our small plant millions to upgrade it and that does not guarantee success. We have limits now that we meet and most of the problems come from runoff which needs to be addressed. The public cannot afford this.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0245-cp.001.003

Author Name: Coulter Laurie

Organization: Virginia Crop Production Association, Inc. (VACPA)

The Bay TMDL, which requires Virginia to develop a Watershed Implementation Plan (WIP), will have a high cost for compliance for all sectors. While VACPA agrees that there is a benefit of clean waters within the Bay and local

watersheds, the economic costs for compliance must be balanced, and water quality programs cannot be developed in a vacuum without considering economic impacts to the economy.

Response

Thank you for your comments. The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. The CWA Section 303(d) requires TMDLs to be established for impaired or threatened waters at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety. Federal regulations at 40 CFR Section 130.7(c) track the statute and require TMDLs to be developed at levels necessary to attain and maintain the applicable narrative and numerical water quality standard with seasonal variations and a margin of safety and that take into account critical conditions. TMDLs are to include wasteload allocations for each point source and load allocations for nonpoint sources. Neither the CWA nor EPA's implementing regulations require the state or EPA to consider the costs to implement the TMDL when establishing the TMDL at a level necessary to implement the applicable water quality standards. However, there are economic benefits to improving local water quality.

A study by the University of Virginia found that implementation of the agricultural practices to reduce runoff pollution called for in Virginia's Chesapeake Bay "tributary strategy," such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts. Over a five year period these actions would create \$940 million in industrial output, a \$455 million impact on gross domestic product, and create nearly 12,000 jobs (42).

42) Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in Virginia's Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. February 23, 2010. www.coopercenter.org/sites/default/files/publications/BMP_paper_final.pdf.

Comment ID 0245-cp.001.005

Author Name: Coulter Laurie

Organization: Virginia Crop Production Association, Inc. (VACPA)

Agriculture has the benefit of estimating some expenses based on existing data on cost of implementing AgBMPs through current state and federal programs. Virginia estimates that just one practice (cattle fencing) could cost more than \$800 million to implement. Fencing cattle from streams, putting in crossings, providing alternative watering, etc. costs on average \$30,000 for a Virginia cattle farmer. Virginia's Natural Resources Commitment Fund says Ag BMP cost-share funds will need to be \$63.2 million annually from 2025 in order to get 60% NPS reduction goals from agriculture. This is only cost-share funding from the state doesn't account for federal government's traditional share of funding or the money that comes from farmers. Current funding estimates are just based upon the cost of installing the practice, they do not account for costs like loss of productive land, replacing practices when weather damages occur, fluctuations in markets, etc. Economic conditions (lack of profits, increased input costs, additional credit not an option) mean that extra money to meet regulations is non-existent. Due to long-term devastating economic conditions for agriculture (like other sectors), federal backstops alone (mandatory permitting of small dairies, requiring some ag processing plants to do more) will be enough to drive some farmers out of business. Cost share funding will be critical

to meeting demands of EPA. Agriculture has seen depressed profits, just as the State and local governments have been facing historic deficits. Individual businesses, farmers, and the State cannot meet this unfunded mandate from EPA without significant federal funding.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0249.1.001.005

Author Name: Mixell John

Organization: Fort Littleton Wastewater

EPA cannot provide "Reasonable Assurance" that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0249.1.001.007

Author Name: Mixell John

Organization: Fort Littleton Wastewater

EPA cannot provide "Reasonable Assurance" that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by

which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0250-cp.001.002

Author Name: Eberly C.

Organization:

Further mandates and burdensome regulations will threaten the livelihood of my farm operation. Before EPA decides to move forward with this oppressive action Please remember where your Food comes from unless you want to export all our food for this Country. Just remember a Country is as strong as its Agriculture! Don't forfeit our Country,Agriculture, and Farms for the sake of stiff mandates, costly Regulations and Bureaucratic Suicide.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0250-cp.001.005

Author Name: Eberly C.

Organization:

I do think this regulatory system will limit economic growth in Virginia well beyond the farmer and the Agriculture community if implemented. In this trying time of Recession, don't eliminate jobs by destroying our already fragile economy. AS a Farmer, Conservationists,and an American, please use Facts and Common Sense Before you Destroy Agriculture and the Family Farm in this Great Nation. I trust you will want to eat today and tomorrow.

Response

A TMDL is not a federal regulation. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the

resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0251.1.001.002

Author Name: Duckett Robert

Organization: Peninsula Housing & Builders Association (PHBA)

Our local members, along with numerous other Virginia businesses, local governments and farmers, simply cannot at this time absorb this unprecedented and unfunded federal mandate. The TMDL for the Chesapeake Bay not only will extend the historic decline of housing, and continue the so-called 'jobless recovery,' but we believe it will expand the decline into many other sectors of the state's economy.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. A 1989 study from the state of Maryland that looked at fishing, tourism, property, and shipping activities estimated the value of the Bay to Maryland and Virginia to be \$678 billion (1). Considering inflation, an expert panel in 2004 placed the value at over \$1 trillion, with an annual economic benefit of \$33 to \$60 billion (2,3,4). A 2010 report said that waters that make up Delaware's portion of the Bay watershed—only 1% of the watershed—support 47,000 jobs and \$1 billion in annual economic activity (5). A study by the Virginia Institute of Marine Science estimated that in 2004 recreational and commercial fishing contributed \$1.23 billion in sales, \$717 million in income, and more than 13,000 jobs in Virginia, with two-thirds of the impact from recreation (6). Other studies focused just on sport fishing in Virginia found that salt waters alone generate \$1 billion and 5,000 jobs, and saltwater and freshwaters combined create over \$2 billion and 15,000 jobs (7,8).

Clean water decreases public health burdens associated with consuming tainted fish or shellfish or exposure to waterborne infectious disease while recreating. Mercury fish consumption advisories in Maryland result in annual losses of \$8.83 million for saltwater fishing and \$520,000 for the commercial striped bass fishery (34). Economic valuation studies indicate the annual human health benefits from reducing mercury pollution at tens of millions to billions of dollars from avoided health problems and lost productivity (35,36,37). Another study estimated the cost associated with exposure to polluted recreational marine waters to be \$37 per gastrointestinal illness, \$38 per ear ailment, and \$27 per eye ailment (38). Reducing pollution inputs from pipes and landbased sources can reduce locality costs to treat drinking water sources to safe standards. New York City's expenditure of \$1 billion over the last decade to protect the watersheds north of the city that supply its drinking water avoided the need to build a \$6 billion treatment plant (39). An EPA study of drinking water source protection efforts concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs (40). Proactive efforts to lessen stormwater flows today reduce future public costs needed to maintain navigation channels, remediate pollution and hazard flooding, and repair infrastructure and property damage caused by excessive runoff.

Philadelphia estimates that after 40 years their installation of green infrastructure will create more than \$2 in benefits for every dollar invested, generating \$500 million in economic benefits, \$1.3 billion in social benefits, and \$400 million in environmental benefits (41). A study by the University of Virginia found that implementation of the agricultural practices to reduce runoff pollution called for in Virginia's Chesapeake Bay "tributary strategy," such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts. Over a five year period these actions would create \$940 million in industrial output, a \$455 million impact on gross domestic product, and create nearly 12,000 jobs (42).

- 1) Maryland Department of Economic and Employment Development. 1989. Economic Importance of the Chesapeake Bay.
- 2) Chesapeake Bay Blue Ribbon Finance Panel. 2004. Saving a National Treasure: Financing the Clean up of the Chesapeake Bay. A Report to the Chesapeake Executive Council from the Chesapeake Bay Watershed Blue Ribbon Finance Panel. www.chesapeakebay.net/content/publications/cbp_12881.pdf.
- 3) EPA. 2009. Draft Chesapeake Bay Compliance and Enforcement Strategy. www.epa.gov/oecaerth/civil/initiatives/chesapeakebaystrategyenforcement112409.pdf.
- 4) Maryland Department of Natural Resources. www.dnr.state.md.us/dnrnews/infocus/bay_faq.html. Visited July 22, 2010.
- 5) Delaware's Draft Phase I Chesapeake Bay Watershed Implementation Plan. September 1, 2010. Appendix F. www.wr.dnrec.delaware.gov/Information/WatershedInfo/Documents/Chesapeake%20Phase%201%20WIP/DE_DRAFT_Phase1_WIP_withAppendices_090110a.pdf.
- 6) Kirkley, et. al. 2005. Economic Contributions of Virginia's Commercial Seafood and Recreational Fishing Industries: A User's Manual for Assessing Economic Impacts. Virginia Institute of Marine Science (VIMS), VIMS Marine Resource Report No. 20059, December 2005. www.mrc.virginia.gov/miscellaneous/VIMS%20Economic%20Impact%20Report%202005.pdf.
- 7) Southwick Associates. 2006. The Relative Economics Contribution of U.S. Recreation and Commercial Fisheries. www.angling4oceans.org/pdf/Economics_of_Fisheries_Harvests.pdf.
- 8) America Sportfishing Association. 2008. Sportfishing in America: An Economic Engine and Conservation Powerhouse. www.asafishing.org/images/statistics/resources/Sportfishing%20in%20America%20Rev.%207%202008.pdf.
- 34) P. Jakus, et al. 2002. The Benefits and Costs of Fish Consumption Advisories for Mercury. Resources for the Future. Discussion Paper 0255. www.rff.org/documents/RFFDP0255.pdf.
- 35) Northeast States for Coordinated Air Use Management. 2005. Economic Valuation of Human Health Benefits of Controlling Mercury Emissions from U.S. CoalFired Power Plants. www.nescaum.org/documents/rpt050315mercuryhealth.pdf.
- 36) L..Trasande, et al. 2005. Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain. Environmental Health Perspectives. Vol. 113, No. 55. pp. 590596. www.medscape.com/viewarticle/504642.
- 37) B. Windham. 2002. Economic Cost of Mercury/Toxic Metals Emissions in Florida. <http://www.flcv.com/mercost.html>.
- 38) R. H. Dwight, et al. 2005. Estimating the economic burden from illnesses associated with recreational coastal water pollution a case study in Orange County, California. Journal of Environmental Management. Volume 76, No. 2 pp. 95103.
- 39) DePalma, A. 2006. New York's Water Supply May Need Filtering. New York Times. June 20, 2006. www.nytimes.com/2006/07/20/nyregion/20water.html?_r=1&hp&ex=1153454400&en=2be183debc88eae7&ei=5094&partner=homepage&oref=slogin. Visited July 22, 2010.
- 40) U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki, EPA.
- 41) See note 32.
- 42) Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in

Virginia's Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. February 23, 2010.
www.coopercenter.org/sites/default/files/publications/BMP_paper_final.pdf.

Comment ID 0252.1.001.005

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

mandates will consider ability to pay and adverse economic impacts in setting goals

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0253.1.001.008

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

The County is also concerned with EPA's lack of transparency regarding its lack of disclosure and analysis of costs related to urban stormwater. We understand that in other EPA documents urban stormwater costs for the Bay TMDL have been estimated at an annual cost of \$7.9 billion. Similarly, we understand that the Center for Watershed Protection has reported costs on the order of \$88,000 per acre for urban retrofits. To translate these types of costs estimates to the household level, last month a national engineering firm reported to the Virginia Municipal Stormwater Association ("VAMSA") that EPA's Draft TMDL's costs may be on the order of \$700 to \$1,800 per household per year, for urban stormwater management alone, during the 15-year implementation period. For Henrico County alone, these costs translate to \$848 million to \$1.25 billion over the implementation period, or between \$520/year to \$1,310/year per household. See COM Technical Memorandum dated October 27, 2010 (attached hereto and fully incorporated herein [Comment Letter contains additional information in the form of an attachment. See original comment letter 0253.2]). Obviously, costs in that range are extremely high if not completely unaffordable.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0253.1.001.014

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

What is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments, including Henrico County, have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). Since adoption of the current standard in 2005, local governments designed and constructed the required new facilities with long-term debt, which now must be repaid by the public over the next 20 to 30 years. As explained above, since 2005, the County has completed, or in the process of completing, over \$20 million in improvements to its WWTP. The County objects to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0253.1.001.015

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

Regarding EPA's proposed backstop for MS4s, EPA's Draft TMDL fails to adequately consider a critical aspect relating to whether or not its TMDL will be successful for Bay restoration, namely cost as well as cost-effectiveness and cost-benefit. An expert national engineering firm has estimated the cost to Virginia's MS4 localities to restore 50% of existing untreated impervious area over a 15 year term (the level and manner of effort assumed by EPA in its Draft TMDL). The low estimated per household, annual cost is \$678 in 2011 and possibly as high as \$1,717 in 2025. Further, these staggering figures are only for the specific retrofits considered in EPA's plan and thus omit other significant existing and future costs for other MS4 permit obligations (such as under existing permits and potentially increased requirements under future permits and other TMDLs) and for general maintenance of the existing stormwater system. Furthermore, these costs do not include costs for land acquisition, which would inevitably be required for the property needed to construct the necessary retrofits and BMPs.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0256.1.001.007

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

More stringent regulations and expensive retrofits for stormwater facilities to meet TMDL requirements will have an enormous impact on the ability of local governments to pay for them. In Pennsylvania, for example, the state is reported to be facing a five billion dollar deficit which has already caused environmental programs and staff to be drastically reduced.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0257.1.001.006

Author Name: Christian Stephen

Organization: Berkeley County Development Authority, Berkeley County, Martinsburg, West Virginia

severely limit future economic growth opportunities for Berkeley County and effect land use restrictions. The "net zero"

pollution rate will decrease development opportunities and act as a disincentive for business growth, both commercial and agricultural, in Berkeley County, if not the shrinking of industrial and agricultural activity in the Eastern Panhandle as a whole. This means lost job opportunities and lost revenue for Berkeley County as well as West Virginia.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0260.1.001.003

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

Equally troubling is that the amount of additional reduction from point sources that may now be required to treat to "limit-of-technology" essentially nets a fraction of the needed reductions from Pennsylvania. This mere fraction however carries a huge financial burden, basically more than doubling the \$1.4 billion* treatment plants have already invested in Bay nutrient reduction upgrades. From a public policy perspective, this represents a dubious planning and fiscal approach to actually achieving a successful strategy for compliance, forcing the rate-paying public to fund projects with little return on that investment.

(* Metcalf and Eddy report. Six-month study commissioned by the Pennsylvania State Legislature released in November 2008. Report available at: <http://lbfc.legis.state.pa.us>)

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0265.1.001.002

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

The Hampton Roads Planning District Commission (HRPDC) appreciates the opportunity to submit these joint comments on behalf of the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, and the counties of Isle of Wight, Gloucester, James City, Surry, and York on the Environmental Protection Agency's September 2010 draft Chesapeake Bay Total Maximum Daily Load (TMDL).

The cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach own Municipal Separate Storm Sewer Systems (MS4s) that operate under individual Phase I MS4 NPDES permits issued by the Virginia Department of Conservation and Recreation (DCR), while the cities of Poquoson, Suffolk and Williamsburg, and the counties of Isle of Wight, James City, and York own MS4s that operate under a general Phase II MS4 permit issued by DCR. At present, Gloucester and Surry are not designated as MS4s, but could be so designated in the future due to population growth or modification of the criteria used to designate MS4s.

At the Commission meeting on October 20, 2010, the HRPDC acted to endorse the following position and attached comments.

- The cost of achieving the urban runoff sector allocations per EPA's backstop allocations would place an unreasonable financial burden on the residents of Hampton Roads. The estimated \$1.05 billion in annual costs equates to a total average annual storm water fee of \$1,670 per household equates to 2.3 percent to 3.0 percent of median household income (MHI).

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0265.1.001.012

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

Exhibit B [Comment Letter contains additional information in the form of an attachment. See original comment letter 0265.1] shows that the average 54 (James) and 59 (York) percent load reduction needed to achieve the backstop allocation for phosphorus would require treatment of approximately 68 and 74 percent of the urban land area in the James River and York River basins, respectively.[FN 3] The estimated total costs of treatment are approximately \$9.8 billion (or approximately \$1.05 billion per year [FN 4]) after factoring in the added cost of designing storm water controls that would function effectively on the flat, low-lying terrain and in the soils and high water table that dominate the topography and hydrology in the Hampton Roads area.[FN 5] However, as explained below, these estimated costs do not include the added cost of acquiring new easements and construction in existing utility easements.

The magnitude of the financial burden that would be imposed on the residents of the Localities cannot be overstated. As shown in Exhibit C, the estimated \$1.05 billion in annual costs equates to a total average annual storm water fee of \$1,670 per household, or \$720 per person. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0265.1] These fees, in turn, equate to 2.3 percent of median household income (MHI), and 3.0 percent of MHI when the fees imposed on non-residential land owners are passed onto the consumer. Expressed another way, the estimated annual cost of attaining the allocations (without adding the cost of easement acquisition) represents 118 percent of the Localities' 2009 total annual expenditures for public safety (police and fire) and 37 percent of their total annual expenditures for schools. Further, as high as the estimated treatment costs are, they do not tell the whole story.

[FN 3] Although Exhibit B shows that the percent of urban land area that would have to be treated to achieve the load reductions needed to attain the total suspended solids (TSS) allocations are greater than the area that would have to be treated to attain the TP allocations, we have used TP as the benchmark for the cost estimates because it represents a mid-point in the percent reductions for TN, TP, and TSS. Further, the controls that will remove TP also serve to remove TSS. It is possible that the costs to achieve the TSS allocations could be higher than the cost to achieve the TP allocations in the York River basin.

[FN 4] In addition to the cost of designing and installing the controls, the estimated annual cost includes operation and maintenance costs and 30-year bond financing at a 5.5 interest rate.

[FN 5] The Localities evaluated three control scenarios to arrive at this cost estimate: (1) Scenario 1a - all best management practices (which includes voluntary urban nutrient management plans); (2) Scenario 1b - substituting storage for urban nutrient management plans; and (3) Scenario 1c - more reliance on storage than best management practices. See Exhibit C. Scenario 1c was selected as the control scenario reflecting the level of effort that would be required to achieve the allocations given the topography, hydrology, and soils in the coastal region and the Localities' experience to date with urban nutrient management plans.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0265.1.001.027

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

C. A knee-of-the-curve analysis further indicates that the James River allocations should be based on the Tributary Strategy

We recognize that EPA has a certain amount of discretion to rely on model predictions as the basis for its TMDLs, even when the predictions are acknowledged to reflect some uncertainty. However, there are limits to the exercise of that discretion; and this is one instance where EPA would be acting arbitrarily because in addition to unresolved flaws in the model, the model predictions are unable to reliably distinguish between model scenarios with immense cost implications as shown in the following knee-of-curve analysis, which was prepared by one of the Localities' consulting engineers, Greeley and Hansen.

[Figure 3] Knee-of-the-Curve Analysis for James River Chlorophyll-a WQS

Figure 3 shows the estimated capital costs of attaining the chlorophyll-a criteria against the percent attainment rate. The capital costs include estimates for basin-wide wastewater treatment plant reductions, agricultural BMPs, and urban runoff controls necessary to meet the allocations identified by EPA for the scenarios identified in Figure 3. The wastewater treatment plant capital costs are a function of design flows and level of treatment (biological nutrient removal, enhanced nutrient removal and limit of technology). Agricultural capital costs are based on BMP unit cost per acre and the BMP assumptions used in the Phase 5.3 Model. The urban runoff capital costs[FN 17] are based on the performance associated with the runoff reduction method for an estimated amount of retrofit controls that could be installed in a locality, which represents only a portion of the urban runoff costs. The costs for the remainder of the urban runoff reductions needed to meet the allocations would be achieved with storage and reuse. The estimated capital costs were prepared for the following EPA Scenarios:

- '91-'00 Base Scenario: Point "A" represents the James River TN and TP loading of 36.9 and 3.3 million pounds per year, respectively.
- EPA's Tributary Strategy: Point "B" represents the James River TN and TP portion of the Bay-wide loading, which is 27.5 and 3.3 million pounds per year, respectively.
- EPA's James Chl-a Compliance: Point "C" represents the James River TN and TP loading of 23.5 and 2.35 million pounds per year, respectively. EPA has selected this scenario as the basis for compliance with the James River chlorophyll-a criteria. EPA also refers to this scenario as "James Level of Effort at ½ Potomac". In Appendix J to the TMDL Report, EPA states "In the James, the nutrient loads are equivalent to the level of effort half way between Virginia's portion of the Potomac and the James for the 190/12 Loading Scenario."
- E3 (Everything, Everywhere, by Everybody): Point "D" represents the James River TN and TP loading of 16.1 and 1.5 million pounds per year, respectively. EPA considers this to be the "theoretical maximum levels of managed controls on all pollutant load sources". There are no cost and few physical limitations to implementing controls for point and nonpoint sources in the E3 scenario. This scenario is used with the No-Action scenario to define the "controllable" loads, i.e., the difference between No-Action and E3 loads." See TMDL Report at Appendix J.

The knee-of-the-curve analysis determines where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. There is a steep inflection at Point "B" that represents the knee-of-the-curve. Any reduction beyond Point "B" lacks a viable cost-to-benefit ratio and does not reflect a reasonable level of attainment. EPA has selected Point "C" as the basis for the James River compliance with the chlorophyll-a criteria, which is about half way between Point "B" and EPA's E3 scenario (Point "D"). If one assumes that the model predictions are accurate (about which there is substantial doubt), at Point "B", the James River would be 93 to 94 percent compliant with chlorophyll-a criteria compared to 99 percent at Point "C". However, the true difference in chlorophyll model output between Points "B" and "C" is only 2 to 3 g/L (three parts in a billion). Additionally, the sampling and testing accuracies for physical water measurements is 1 to 3 g/L. In other words, even if the loadings between Points "B" and "C" were achieved, it is unlikely that the difference in James River chlorophyll-a concentrations could be measured. The difference in the estimated cost of achieving the loadings between Points "B" and "C", on the other hand, is over \$10 billion.

[Figure 3- Please see original document]

[FN 17] Urban nutrient management was not included. The capital costs are based on meeting the waste load allocation for the Urban Runoff identified in Appendix Q-1 of the TMDL report.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. For additional information on your comment regarding the James River please see the response to Comment ID 0436.1.001.027.

Comment ID 0266.1.001.006

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, the Federally-designated TMDL, intended to limit nitrogen, phosphorous and sediment discharges into the Chesapeake Bay, is projected to cost New York State communities at least 2 billion dollars and New York State farmers 500 million dollars by 2025, without being able to satisfy EPA's regulatory goal

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. It is EPA's preference that each jurisdiction develops a Watershed Implementation Plan that meets the TMDL load allocations in a manner that best meets the needs of the jurisdiction both environmentally and economically. The states are responsible for allocating the tributary loads to the source sectors within their jurisdiction as part of the jurisdictions' Watershed

Implementation Plan that will be used to inform the TMDL. A jurisdiction may choose to take action towards individual or more general sectors in achieving load reductions. Each jurisdiction has a unique set of practices they intend to use to meet water quality standards. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0266.1.001.020

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

the unfair burden that this places on the communities and farmers in the Chesapeake Bay watershed in New York

Response

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0267.1.001.012

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

The proposed allocations also put a stranglehold on future economic growth within the region. Given that the allocations are impractical to achieve, communities in New York's watershed jurisdiction would be unable to develop agricultural or non-agricultural businesses that would jeopardize increasing loading from point or nonpoint sources. [FN 4]

[FN 4] 4 See Draft TMDL at app. S-2. Thus, since New York would not even meet its initial allocations, any additional loading would not even qualify as "new or increased loading" defined in the draft TMDL as occurring "after the point in time the source begins meeting its WLA or LA." Id. (emphasis in original).

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0269.1.001.005

Author Name: Mixell John

Organization: Forbes Road School District

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0269.1.001.007

Author Name: Mixell John

Organization: Forbes Road School District

This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0271.1.001.001

Author Name: Harrison L.

Organization: South Central Wastewater Authority, Petersburg, Virginia

We expect to do our part for the Bay restoration. In fact, our WWTP is in the process of being upgraded with nutrient removal technology. Our facility is under the final stages of design and is expected to go to construction in approximately mid 2012. This project is expected to cost approximately \$60 million. To pay for this project, rates will have to be increased. Increases will vary across the five jurisdictions that we serve, but are currently estimated to be in the 75 to 100% range over current rates.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0271.1.001.010

Author Name: Harrison L.

Organization: South Central Wastewater Authority, Petersburg, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years). We object to the waste inherent in EPA's proposed override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0275.1.001.006

Author Name: LaClair André

Organization: Broome County Environmental Management Council (BCEMC), Binghamton, New York

Implementation of the TMDL will require New York State and local communities to tackle the EPA's "pollution diet" to

the tune of billions of dollars. Dramatic fiscal impacts on the economic development and growth of Southern Tier farms and businesses, and the sustainability of local governments will be hampered further by additional costs of compliance.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0277.1.001.001

Author Name: Shambaugh Brenda

Organization: PA Association of Conservation Districts (PACD)

As is stated in the PA Water Implementation Plan (PA WIP), conservation districts are recognized as the primary staff for implementing Pennsylvania's agricultural programs. Among other programs, the conservation districts implement the Erosion and Sedimentation Control program and the Nutrient Management program. Without these dedicated local employees, the necessary "hands-on" technical assistance would not exist in Pennsylvania both in the Chesapeake Bay Watershed and the other watersheds throughout the Commonwealth. It is important to note the value of the conservation districts and to understand their importance when discussing nutrient reductions in Pennsylvania's waterways and ultimately water flowing into the Chesapeake Bay.

One of the top priorities for conservation districts is to assist landowners as they strive to comply with new and existing state and federal regulations concerning nutrient reductions. While recognizing the need for cost-effective and efficient nutrient planning, conservation district employees are the providers of technical assistance and a common sense approach to installing best management practices (BMP's). As a result, it is essential to provide adequate conservation district funding to provide a sufficient number of staff necessary for program success. Unfortunately, rather than increasing conservation district staff a recent employment history survey shows that out of the 58 conservation district responding, 32 have been forced to decrease their overall staffing levels for 2009 because of budgetary constraints. At the end of 2009 there were collectively 532 full or part time conservation district employees. By comparison, in 2010 conservation districts in PA employ a total of 485 full and part time workers, a reduction of 42 employees or nearly 10 percent of their total workforce. We recommend a Conservation District Fund allocation of \$15 million annually to cover the workload required because of the additional responsibilities associated with Chesapeake Bay activities.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. Future enhancements include addressing current short falls in resources and proposed strategies to increase resources.

EPA does not have the authority to dictate where a jurisdiction allocates its funding.

Comment ID 0284.1.001.001

Author Name: Shwed John

Organization: Town of Laurel, Delaware

Having said that, I must on behalf of the people of Laurel protest the plant discharge water standards of 4.0 mg/l total nitrogen and 1.0 mg/l for total phosphorus as proposed by the State of Delaware-DNREC, on economic grounds. Laurel is an economically distressed area. Our median income is \$28,000 per year. Our Town needs to grow in territory and service so that we can attract new jobs to the area and increase our tax base. If we do not do that our people will be faced with a future laden with continuing increases in water and sewer fees.

Laurel is at a competitive disadvantage compared to its larger neighboring Towns to the north. They would be able to increase discharge capacity with proper upgrades as Laurel has done and increase their discharge capacity into the Nanticoke River. Because of a mathematical quirk our plant is permitted for 700,000 gal per day discharge. To accomplish our future growth economically the Town of Laurel should be permitted to discharge at least 2 million gallons per day into Broad Creek. Without a severe financial penalty we will have difficulty in meeting the proposed State of Delaware standards of 4.0 mg/l total nitrogen and 1.0 mg/l of total phosphorous at the 700,000 gal per day flow rate; expansion to 2 million gallons per day flow rate is virtually impossible.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0288.1.001.010

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

Not only are allocations under the Virginia Regulations and Draft WIP more appropriate than those of the Draft TMDL for technical reasons and the above-stated policy reasons, but at some point the relentless regulatory pressure to increase wastewater rates must be considered. According to Draper Aden Associates' most recent annual water and wastewater rate report, Virginia wastewater rates rose an average of 5% last year and 67% over the last decade. Many VAMWA members have reported double-digit rate increases for multiple years. This comes at a time when unemployment levels are very high (currently at 9.6%). Consideration should be given to the impact of the higher costs that EPA is forcing on Virginia's families and businesses.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0291-cp.001.005

Author Name: Koch E.

Organization: North Middleton Authority

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0291-cp.001.007

Author Name: Koch E.

Organization: North Middleton Authority

This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0296.001.001

Author Name: Shank J.

Organization:

We are farmers in the Chesapeake Bay Watershed. We feel that we are good stewards of the land and environment. Over the last 20 some years we have taken steps to cut pollution and improve environment. We feel that some of the new proposals will be extremely costly and will put us out of business. Please reconsider these proposals. We welcome you to come visit our farm. Thanks for your consideration.

Response

EPA commends all efforts made thus far to improve water quality, but reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. The intent of the TMDL is not to put any farms or other businesses out of business. EPA directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0297.1.001.001

Author Name: Swailes Anna

Organization: Metal Township Municipal Authority

We are responsible for a small public wastewater treatment system that is just eight (8) years old and operates in a rural area. This system was build with state-of-the art design standards and we have always met our permit requirements. Since the system services a community of low to moderate income households (about 200 families) the changes you are proposing would quickly bankrupt us.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0298.2.001.004

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

EPA's proposed backstop allocations for the James River basin provide some relief for urban runoff sector, but not nearly enough to provide reasonable assurance that the allocations can be achieved. The average 54 percent load reduction needed to achieve the backstop allocation for phosphorus would require treatment of approximately 65 percent of the impervious land area in the Hampton Roads Localities at a total estimated cost of \$1,166,000,000.00 in the City of Newport News alone, plus the cost of land acquisition, between now and 2025.

Response

Please see the response to comment 0067.1.001.009 addressing WIP backstops and the response to comment 0501.1.001.005 regarding public sector point sources.

Comment ID 0298.2.001.007

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

D. The Socio-Economic Impact of the Proposed Urban Runoff Allocations

According to an estimate prepared for the Hampton Roads Planning District Commission by the engineering firm of Greeley & Hansen, the anticipated cost to the City of Newport News of the implementation of the provisions by 2025 will be \$1,166,000,000.00 for infrastructure and additional employees and contractors. This breaks down to approximately \$110 million per year, and would result in an increase of the City's operating budget of 24.6%. If the City chooses to pay through the Stormwater Utility fee, this fee would have to increase from \$65.40 a year per ERU to \$871.00 per ERU per year, a 1194% increase. This increase will disproportionately affect low income persons, particularly the elderly and disabled persons on fixed incomes.

Response

Please see the response to comment 0067.1.001.009 addressing WIP backstops and the response to comment 0501.1.001.005 regarding public sector point sources.

Comment ID 0298.2.001.023

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

The costs of implementing the small percentage of improvement between the Tributary Strategies and the James River allocations makes up the greatest percentage of the \$1,166,000.000.00 that the City's estimated cost, when the benefits are minimal. The City relies upon the charts and further explanation of this issue in the Comments on the Draft Chesapeake Bay TMDL by the Hampton Roads Planning District Commission on behalf of the Hampton Roads Localities with Municipal Separate Storm Sewer Systems, Docket Number EPA-R03-OW-2010-0736.

Response

Please see the response to comment 0501.1.001.005 regarding public sector point sources and the response to comment 0139.1.001.017 addressing cost benefit.

Comment ID 0300.1.001.004

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

Furthermore, EPA stated in their Draft EPA Position Paper on The Chesapeake Bay TMDL Framework dated April 6, 2009 that "an affordability assessment will be conducted to determine the degree of financial stress that the Bay TMDL loading reductions will place on the individual source sectors (e.g., wastewater treatment, agriculture, municipal stormwater runoff) and how those financial burdens might be addressed within the implementation plans". EPA's commitment to complete an affordability assessment is too important to the process to wait until after the final TMDL is published. VDOT respectfully requests that this assessment be conducted immediately and the results provided as part of another public comment period for the draft TMDL.

Response

EPA has developed this TMDL based on the requirements of Section 303(d) of the CWA and the implementing regulations found at 40 CFR 130.7. The CWA and federal regulations require that TMDLs be designed to meet existing, applicable water quality standards (numeric, narrative, uses and anti-degradation), include wasteload allocations (WLA) for each point source, load allocations (LA) for non-point sources (allocated to specific sources if data allow, or gross allotments to source types), consider seasonal impacts, and include a margin of safety. An affordability assessment is not needed to establish the TMDL.

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0301.1.001.007

Author Name: Pappas Peter

Organization: Middletown Borough Authority

This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0304.1.001.002

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

First, the reality is that if this TMDL proposal becomes law, our local boroughs, townships and municipalities will bear the brunt of these unfunded mandates. The TMDL requires that our local governments perform upgrades to point sources, such as water and sewage treatment facilities, if they don't meet these mandatory standards. This also includes upgrading management techniques for storm water runoff, erosion, and all other management activities that releases nitrogen, phosphorus or sediment in the watershed. Many of these small communities in rural Pennsylvania already have minimal budgets and simply cannot afford to spend hundreds of thousands to millions of dollars complying with these new rules. In other words, this proposal equates to costly unfunded mandates on local municipalities and boroughs that are often located in rural areas.

Secondly, this proposal alarms me because of its likely effects on Pennsylvania's farms and agribusiness. Because the TMDL mandate will regulate pollution levels from nonpoint sources, substantial new financial and regulatory burdens will be forced on many of Pennsylvania's farmers. Agriculture is Pennsylvania's largest single industry, and is the top job source in many areas in my district and throughout the watershed region. Many farms in Pennsylvania tend to be small family-run businesses; and generally, most farmers in the Commonwealth are not independently wealthy. In recent years, many farms in Pennsylvania have had their wallets further squeezed due to the economic recession. Take Pennsylvania's number one sector within the agriculture industry - dairy - for example. Dairy producers have seen record breaking low prices in the past few years. Dairy prices have been so low for extended periods of time that producers have been unable to meet the costs of production. This has resulted in great financial hardship for our dairy farmers across the commonwealth, throughout the northeast, and nationwide. In some cases, low prices have driven

some to bankruptcy, forcing the sale of the farm. The TMDL will without a doubt increase costs on Pennsylvania's farmers at a time when the nation is trying to pull out of a recession and many farmers are struggling just to meet their bottom lines.

Furthermore, this proposal concerns me because of the long-term impacts it likely will have on Pennsylvania agriculture and our rural economies. Due to market forces and well-intentioned federal policies, we unfortunately continue to see the trend of farms in rural Pennsylvania disappearing and agricultural lands taken out of production. This has been going on for decades and I strongly believe that a TMDL mandate such as this will inevitably result in the removal of more acres from agricultural production. Reducing our farm lands means less jobs and economic security in rural America and less food for our nation and abroad.

Response

EPA reminds the commenter that the TMDL is not a Federal regulation or law.

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards and directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0304.1.001.005

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

Wellsboro has recently paid over \$15,000 for a study to put in effect a pretreatment ordinance that significantly reduces limits of phosphorus and nitrogen to our Waste Water Treatment Plant. Costs associated with another 25 percent reduction in these limits would cause an unfair burden on our users.

Response

Because industrial users typically treat wastewater before sending it to a WWTP, one would expect that if the WWTP is paying to treat industrial wastewater, these costs would be passed to the industrial user rather than the ratepayers. Wellsboro does not currently have a pretreatment program run by EPA (the pretreatment program is administered by EPA in PA). As WWTPs throughout the Bay watershed face upgrades as loadings are reduced through the TMDL, EPA does not agree that Wellsboro faces an unfair burden.

Please see the response to comment 0501.1.001.005 addressing municipal point sources.

Comment ID 0304.1.001.009

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

In our case, an engineering feasibility study has been contracted by the Moshannon Valley Joint Sewer Authority (MVJSA), which provides options to meet the new standards. The option recommended by the study would cost over \$14 million. Even with favorable funding, this would increase the average sewer bill of Philipsburg Borough by at least \$55.00 a month, making our rates almost double the suggested average resident per month rate in Pennsylvania. This would be devastating to the many elderly and low income residents of our Borough. The same is true for the other municipalities served by the MVJSA as well as others in Pennsylvania.

We urge you to look into this problem and try to convince the EPA that there has to be some way to correct this problem on a more equitable basis than putting it on the backs of small municipalities such as the Borough of Philipsburg.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0304.1.001.010

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

I write to you today concerning an issue that will have severe economic impact on the residents of Lawrence Township. The Chesapeake Bay clean up effort is going to be devastating on our local population and our economy. As it stands now your constituents stand to see their monthly sewage fees double and possibly triple in some instances because of this program.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0304.1.001.012

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

We just can't deal with un-funded mandates anymore. Please-stop-look-listen-help us out here, work with us, help us find alternatives to this unnecessary hardship being forced upon us.

We know the Bay is bad and we too want it cleaned up, but don't put this burden all on the back of your constituents. Let's look for alternatives, find a better solution, one that won't break the bank.

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. Please see the response to Comment 0038.1.001.024 outlining the Federal commitments to the Bay.

Comment ID 0304.1.001.013

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

This intentions of this letter is to bring your attention in what we feel is a very serious problem which has the potential of bankrupting several municipalities in your district and bringing with it financial hardships to thousands of yours and our constituents. This is the requirement that the Environmental Protection Agency has imposed on the Commonwealth of Pennsylvania to meet the requirements of the Clean Water Act with regards to the pollution of the Chesapeake Bay.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0304.1.001.015

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

In our case, the Moshannon Valley Sewer Authority, acting in good faith, commissioned an engineering feasibility study to provide options to meet the currently proposed standards. The option recommended by the study would cost over \$14 million. This translates into an increase in the average sewer bill of the Morris Township residents of at least \$35.00 per month. Morris Township is largely made up of the Elderly with fixed incomes and low income residents. This would have a devastating effect on these residents. This is also true for the other townships and boroughs served by the Moshannon Valley Joint Sewer Authority as well as other small municipalities in Pennsylvania.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0304.1.001.017

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

We are writing to bring to your attention a very serious crisis which has the potential for bankrupting our authority and township along with the Moshannon Valley Joint Sewer Authority (MVJSA) and several other municipalities in your district, and bringing untold financial hardship to thousands of your constituents. This problem is the requirement which the Environmental Protection Agency (EPA) has imposed on the Commonwealth of Pennsylvania to meet the requirements of the Clean Water Act with regards to pollution of the Chesapeake Bay.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0304.1.001.019

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

In our case, the MVJSA acting in good faith, requested an engineering feasibility study to provide options to meet the currently proposed standards. The option recommended by the study would cost over \$14 million. Even assuming favorable funding for a \$14 million plus project, this would still translate into an increase to each sewer bill in our service area within Morris & Graham Townships of \$35 a month and possibly as high as \$48 a month with less favorable funding. This kind of rate increase would have an overwhelming effect on our residents and business and a devastating effect on our elderly and low income residents in our service area. The same is true for the other municipalities served by the MVJSA as well as other small communities throughout Pennsylvania.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0305-cp.001.004

Author Name: Woodhouse Doug

Organization: Virginia American Water (VAW)

The proposed EPA "Backstop" allocations would force HRWTF to implement very costly advanced treatment technologies that may or may not achieve the desired goal. The advanced treatment technologies may prove to be so

costly that Industrial customers would be placed in a non-competitive disadvantaged situation, and have no choice other than to shut down operations. It is hoped that a resolution can be found that would help to reduce the nutrients that promote algae, at a fair and reasonable cost associated for the equipment and technologies needed to reach the desired goal.

Response

Please see the response to comment 0067.1.001.009 regarding EPA's WIP rational. The intent of the TMDL is not to put any business out of business, or to do any economic harm.

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards and directs the commenter to the response to comment 0501.1.001.005.

Comment ID 0313-cp.001.005

Author Name: Opalisky Larry

Organization: Curwensville Municipal Authority

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

With regard to EPA's WIP rational, please see the response to comment 0067.1.001.009. Please see the response to comment 0501.1.001.005 addressing municipal point sources.

Comment ID 0313-cp.001.007

Author Name: Opalisky Larry

Organization: Curwensville Municipal Authority

This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0315.001.002

Author Name: Scott Edward

Organization: Commonwealth of Virginia

More importantly I am concerned that this haste to act and an overzealous and burdensome regulatory approach may do irreparable harm to Virginia jobs and the economy. The economic costs for compliance must be balanced. Federal backstops, in particular, could do more harm than good if permitting requirements drive farmers out of business and off their land or restrict wastewater treatment upgrades, resulting in capped growth in expanding communities.

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards by December 31, 2010.

With regard to balancing costs, please see the response to comment 0139.1.001.017 and the response to comment 0067.1.001.009 details EPA's WIP rational and how it has changed.

Comment ID 0315.001.004

Author Name: Scott Edward

Organization: Commonwealth of Virginia

We need a vibrant economy so that all of the above sectors can invest further in Chesapeake Bay restoration. The federal government alone cannot and will not be the answer.

Response

EPA agrees with the comment.

Comment ID 0316.001.004

Author Name: Bulova Sharon

Organization: County of Fairfax, Virginia

Local governments support a healthy environment and have a constructive role to play in improving water quality in the Chesapeake Bay and in all waters of Virginia. However, we have significant concerns about the costs that the TMDL initiative will impose on local governments and their residents. A sound strategy for improving water quality to levels required by EPA, will not succeed unless the economic costs associated with these efforts are fully understood, and a plan is developed for distributing these costs among the different levels of government.

Further, given the current economic conditions, these initiatives could not be coming at a more difficult time. Because of Virginia's fiscal constraints, state aid to localities has fallen by \$1 billion since 2008. These cuts in state aid have affected our public schools, mental health programs, social services and public safety. The economic downturn and ongoing foreclosure crisis have directly impacted local government revenues and have forced many localities to cut back on the services they provide and on their workforces. From June 2009 to June 2010, 15,600 local government jobs in Virginia were eliminated. These points are not being made to suggest that local governments should not be active partners in improving water quality; in fact, we have done the lion's share of the work in this area. Our chief contention is that there is a major role that the federal and state governments must take in underwriting the costs of the very expensive programs that the Chesapeake Bay TMDL will generate.

Response

Please see the response to comment 0501.1.001.005 regarding public sector point sources and the response to comment 0038.1.001.024 outlining the Federal effort to the Bay.

Comment ID 0325-cp.001.001

Author Name: Bradshaw Sarah

Organization: Sand Hill Farm

Please, do not limit our ability to be profitable and remain a family farm. We're now in the sixth generation of farming in

Southampton County, VA. We have been doing everything we can to maintain our soil and water resources for the next generation and also for our bottom line. It just doesn't make sense not to take care of the land we depend on. The proposed TMDL will very likely put us out of business, costing the local government even more. Currently our farm doesn't need schools, roads, and other services. But if we are unable to farm, we will be forced to sell lots for development.

Cost share funding will be critical to meeting demands of EPA. Due to several recent weather disasters, Virginia grain farmers in some cases face their fourth failed crop consecutively. This causes little to no profit and in turn decreases their farm income average. Farmers cannot carry the burden of financing additional best management practices or paying to have documents created outlining how they already farm only to satisfy government regulations (ex - nutrient management plans cost \$3-\$5 per acre).

Please, don't regulate agriculture just because you can and you can't regulate homeowners that pollute the bay at larger numbers.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0326-cp.001.001

Author Name: Strickler Matthew

Organization: Old Plantation Oyster Company

As a small business owner in the rapidly growing aquaculture industry, I feel compelled to offer my comments on the draft TMDL. While some may complain that regulations will cut into their bottom lines, we all need to consider the impact of our own actions on the livelihoods of others.

There will be a substantial economic benefit from these actions to curb pollution, especially for industries like tourism, aquaculture, commercial fishing, and recreational angling. Virginia's decades long passive approach to water quality improvement has resulted in lost jobs and the forfeiture of economic growth in Bay-dependent sectors of the economy.

Reducing pollution will also increase the sustainability of upstream enterprises, making them more profitable now and in the long run. Market trends show that consumers of agricultural products, manufactured goods, and housing care about

how what they buy impacts the environment. Farms and businesses that can market produce as 'Bay friendly' will command price premiums. In many cases they will also be able to reduce their costs through practices and processes that use fewer polluting resource inputs. The sooner Virginia and other Bay states realize and embraces this, the sooner we will establish a green competitive advantage over producers from other states and countries.

Response

Thank you for the support in your comments. There are numerous studies that support your comments regarding the economic benefits of improving the water quality in the Chesapeake Bay. See response to 0038.1.001.008 which highlights some of those studies.

Comment ID 0329.1.001.007

Author Name: Harrington Marilou

Organization: Town of Caroline, New York

Whereas, we object to EPA's discriminatory regulatory process that disproportionately burdens our farm communities with costly mandates, weakens our rural economies, disrupts local food systems and provides no additional water quality protection for the Chesapeake Bay watershed; and

Response

A TMDL is not a federal regulation or mandate. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0330.1.001.008

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

Additionally, the City is very concerned that the Draft TMDL places a staggering burden on local governments during a time of significant economic distress. The HRPDC's estimate for the total cost of implementing the Draft TMDL in the

City of Chesapeake by 2025 is \$1.367 billion (\$210 million for Best Management Practice costs and \$1.157 billion in storage and re-use costs). This would modestly equate to an annual per capita cost of approximately \$437, which is calculated at the lower end of the range, and public and private expenditures of approximately \$98 million a year. The families and businesses of Chesapeake are already facing extreme financial hardships, making any additional burden of this magnitude completely untenable and unacceptable. Without significant state and federal assistance, this unfunded mandate will be impossible to support solely with local resources.

Response

A TMDL is not a federal mandate. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0330.1.001.013

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

As proposed, meeting the TMDL goals recommended by the EPA would require significant reductions in pollutants through treatment of existing urban lands. Two immediate problems arise with this proposal. First, while new development has, and will continue to, construct and maintain BMPs to offset pollutant loading, the City has no authority to require existing development to retrofit private property to meet water quality goals. The only means of retrofitting existing private development would require the City to acquire land interests through acquisition or condemnation and install the necessary improvements. The costs associated with such an effort would be exorbitant and prohibitive. Thus, the EPA has failed to recognize that in the absence of re-development requiring local land use approvals, Virginia localities have no express or implied regulatory authority to require retrofits of existing private development. Second, the City is also severely limited in its ability to construct new BMPs needed to meet the pollutant reduction levels required by the Draft TMDL. The City directly controls less than 15% of property within the jurisdictional boundaries of Chesapeake, and the majority of that land is improved with roadway and utility infrastructure. This affords the City small opportunity for BMP retrofitting without the purchase of additional real property interests or the reconstruction of its existing public facilities. Both options would be costly, inefficient and wasteful of public resources.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to

meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to comment number 0232.1.001.004 in regards to retrofits.

Comment ID 0331.1.001.005

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

EPA's proposed backstop allocations for the James River basin provide some relief for urban runoff sector, but not nearly enough to provide reasonable assurance that the allocations can be achieved. The average 54 percent load reduction needed to achieve the backstop allocation for phosphorus would require treatment of approximately 65 percent of the impervious land area in the Hampton Roads Localities at a total estimated cost of \$9.5 billion, not including the cost of land acquisition, between now and 2025. As most of the land that will need to be acquired is already developed, the cost of acquiring sufficient land will be massive. The consequences of these expenditures will, of course, be exacerbated in the current economic climate, in which localities are already severely stressed financially.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0331.1.001.009

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

D. The Socio-Economic Impact of the Proposed Urban Runoff Allocations-

It is impossible to predict the full extent of the socio-economic consequences of attempting to undertake an effort of this magnitude, because such an undertaking has never been tried before. However, it is clear that there is no assurance that the load reductions that would be required to achieve the backstop allocations can be accomplished by EPA's 2025 deadline, and that the cost would be totally out of proportion to any water quality benefit.

As the Hampton Roads area, like the nation as a whole, is in the grip of the worst economic times since the Great Depression, this is the worst possible time for the requirement of retrofitting, given the massive outlays of money it would require from the private and the public sector. As localities face previously unheard-of financial crises, and businesses, especially small and family-owned ones, struggle to remain afloat, the consequences of complying with the proposed EPA mandates will be devastating. And given the uncertainty of success in restoring the Bay by means of retrofitting urban areas, the proposed EPA action is unreasonable.

Further, the EPA has failed to consider an important aspect of the problem, the cost to the locality to implement the TMDLs. Given that cost is one of the main limitations on fully accomplishing the Bay restoration, EPA's failure to consider cost-effectiveness or cost-benefit is arbitrary and capricious.

Response

A TMDL is not a federal mandate. EPA disagrees with the comment that it is arbitrary or capricious for TMDLs to not consider cost. EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0331.1.001.019

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

THE FLAWS AND UNCERTAINTY IN EPA'S MODELED PREDICTIONS DO NOT JUSTIFY JAMES RIVER ALLOCATIONS MORE STRINGENT THAN THOSE ESTABLISHED IN THE 2005 TRIBUTARY STRATEGY

7. The knee-of-the-curve analysis shows that EPA's James River allocations would impose billions of dollars of additional cost while achieving reductions of in-stream chlorophyll-a concentrations that are within the margin of error of the test method. The justification of such costs is simply not present.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0331.1.001.022

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

The Model results that are the basis for the proposed allocations are clearly lacking in the level of precision and certainty required to justify the resulting billions of dollars in costs. EPA professes to be taking an adaptive management approach to the TMDLs; but in reality, EPA is taking an adaptive legal and regulatory approach to the TMDLs by establishing the TMDLs based on incomplete and flawed science and then seeking to supply the missing documentation after the fact. The only outcome of the EPA's course of action that is reasonably certain is that localities will be forced to dig deeply into the pockets of their citizens at a time when they can least afford it; the results that EPA hopes for are, by contrast, highly speculative at best.

Response

For a response to 0379.1.001.006 to address your concerns with the model. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0337-cp.001.001

Author Name: Rollins V.

Organization:

I urge the EPA not to move ahead with costly mandates.

Federal actions must be based on accurate information. No additional regulations or penalties should be put on states or industries, especially prior to appropriate science and data.

Response

The Chesapeake Bay TMDL is based on the best science, modeling tools and data available to date. The TMDL is not establishing new regulations or penalties on States or industry.

Comment ID 0340.1.001.001

Author Name: Miner Steven

Organization: Accomack County, Virginia

The County of Accomack is located on the Delmarva Peninsula, adjacent to the Maryland counties of Somerset and Worcester. It has a population of approximately 38,480 persons. Accomack's economy has several principal bases, including a Federal presence at Wallops Flight Facility, tourism and a high rate of entrepreneurship. However, as vital and important as these economic elements are to the county, agriculture remains the backbone of our economy. We are not wealthy, with 20% of our population at or above the Federal poverty level.

Accomack county has some 90,000 acres of farmland. It consistently leads or is close to the lead of the Commonwealth of Virginia's agricultural production in corn, potatoes, soybeans, green beans and tomatoes. Two major poultry brands, Purdue and Tyson Foods, operate plants in our county, providing a large percentage of our manufacturing jobs and a market for many landowners and farmers for grain and poultry grown in support of those major plants, which by themselves hire about around 3000 people. This industry today has, somehow, remained vital in the face of enhanced overseas competition. How long can they hold out and how much can they bear in costs before they too, are overcome by cheaper imports, which can be frozen and shipped to our markets, and none of which are faced with costs of such a nature? The destabilization of the economy which could result from unwise regulations which might place these plants out of any fair range of economic competitiveness with others within or without the nation would far, far, exceed the damage done to the Bay through a slower, more thoughtful and more creative process which eventually accomplishes the goals we all share.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0340.1.001.007

Author Name: Miner Steven

Organization: Accomack County, Virginia

Overall, this attempt will likely end in utter failure, litigation and further erosion of local confidence in the Federal processes at the state and local level designed to clean up the Bay we all love, as well as depend upon for our livelihoods. There is a very good chance that agriculture and businesses in the Bay shed will pay a disproportionate share of the cost. We ask if this is the time and if this is the manner in which the Federal EPA should go about trying to solve the issues it has identified.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0341.1.001.001

Author Name: Anderson David

Organization: Virginia Fountainhead Alliance

Without question, establishing a total maximum daily load (TMDL) and a watershed implementation plan (WIP) for the Chesapeake Bay will mark an important milestone in Virginia's necessary efforts to restore the Bay. However, it is also hard to overstate the potential effect that the TMDL process could have on Alliance members and the Virginia economy. Essentially, the process involves the EPA setting the levels of phosphorus, nitrogen, and sediment that Virginia can discharge into the Chesapeake Bay. Virginia is then required to provide "reasonable assurance" that those limits are met. If Virginia fails to provide such assurance, EPA will impose what it previously described as "consequences," but now refers to as "federal backstops." EPA imposed nutrient limits have the very real potential to become caps on business activities and economic growth.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please refer to the response to 0038.1.001.008 which gives examples of how improved water quality can have a positive impact on Virginia's economy.

Comment ID 0342.1.001.002

Author Name: Levine Thomas

Organization: Moshannon Valley Joint Sewer Authority

With the requirement for the non-point sources being required to carry their share of the Chesapeake Bay TMDL's, the dynamics of nutrient trading will likely become more costly as this type of nutrient credit will be available at a higher price.

Response

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0348-cp.001.001

Author Name: Comment Anonymous

Organization:

Farmers in my area of the Chesapeake Bay watershed have done a tremendous job of improving their practices over the years. I have been directly involved in the poultry industry for 33 years and over that time period the changes have been dramatic. If farmers are given a chance and sufficient time they will certainly do their part to save the bay. Farmers typically don't have an enormous opportunity to make substantial profit, and without help from state and federal governments they cannot afford the measures that are being thrust upon them by our federal government. I think the recent election shows how the majority of citizens feel about the way government is running our country and this Chesapeake Bay TMDL is just another example. I attended one of the TMDL public meetings and the audience was overwhelmingly on the side of farmers. Please do not rush into this and make decisions that will drive many farmers out of business. This country needs to begin to stop and think where their food actually comes from. It's not just the grocery store. Let's give farmers some time and money and they will do their part. The Chesapeake Bay didn't get in the shape it's in overnight and it certainly won't be fixed overnight.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0351.001.001

Author Name: Wenyer G.

Organization:

We as dairy farmers feel the proposal TMDL would have a horrific impact on the farming industry and all infrastructure involved.

We have already contributed a significant reduction in the watershed pollution, at our own expense. We, for religious reasons don't receive grant money, so if this proposal is implemented we could not afford to continue to farm the fields our fathers worked to leave behind for the next generation. We no longer have a profit margin left to comply with a proposal of this kind.

Also we feel there needs to be real time data used to acheive a common sense goal.

IF THERE ARE NO FARMERS, THERE IS NO FUTURE FOR THE PEOPLE OF THIS NATION.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

The Bay models are based on decades of monitoring data and refinements from dozens of Bay scientists, the models produce estimates. The models assist in developing nutrient and sediment reductions that are most protective of the environment. EPA has confidence that the modeling approach utilized in development of the Chesapeake Bay TMDL is the best possible prediction of the nutrient and sediment loadings that will achieve the water quality standards established for the Bay.

Comment ID 0351.001.003

Author Name: Wenyer G.

Organization:

This proposal if set in motion will: Remove agriculture from the USA. Then we will have housing developments malls, ect., and MUCH more pollution going into the Bay.

Response

The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. EPA does not dispute the costly nature of improving water quality in the Bay watershed. EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Comment ID 0352.001.003

Author Name: Gardner E.

Organization:

Virginia must be allowed to implement its own plans, without costly, burdensome regulations.

The economic cost to agriculture must be taken into account. Many farmers will be driven out of business and I may be one.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0355.1.001.004

Author Name: Williams Jesse

Organization: Williams Cattle Company LLC

During the last 20 years on our farm, which is located near the Nansemond River, we have:

1. Installed many acres of buffer strips at our own expense.
2. Installed grade stabilization structures on all erosion sites, a total of eleven structures.
3. Established vegetative waterways where needed.
4. Dispersed and discontinued large swine and cattle operations.
5. Utilized 100% no till on all corn acreage and 90% no till on soybean acreage. 6. Utilized nutrient management plans.
7. Used GPS and auto controls on sprayers to reduce the amounts of chemicals being used.
8. Hired professional crop scouts who assist us in using minimum amounts of chemicals and fertilizers.
9. Utilized cover crops as cost share monies are available.
10. Followed BMP, Best Management Practices, on our wooded acres.

The EPA needs to recognize that the monies and hard work that we have been spending voluntarily to improve the water quality of the run-off from our farm, has to be paid for by the income from the property. The cost of new rules and regulations plus the increases in property taxes for the local government to cover their mandates will impose a harsh burden.

Response

Thank you for your comments and for all you have done to improve your farming operation and reduce nutrient input to the Bay. EPA understands the cost to farmers and appreciated those farmers, like yourself, that have voluntarily implemented practices that would reduce the nutrient load to your local waters and ultimately the Bay itself. The implementation of this TMDL is not intended to restrict development or impede economic vitality in any community. EPA does not dispute the costly nature of improving water quality in the Bay watershed. EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration. Please note that a TMDL is not a federal mandate.

Comment ID 0359.1.001.003

Author Name: Candland Matthew

Organization: Carroll County Water Resources Coordination Council (WRCC), Carroll County, Maryland

it is difficult to imagine any scenario where the eventual implantation does not create substantial new costs. This is a profound concern for local governments, particularly given the current economic situation. As you may know, our jurisdictions have lost over ten percent of total revenues due to state cuts to local aid such as Highway User Revenues and Police Aid. Our revenue base has been eroded further by declining property values and incomes.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please see the response to 0169.1.001.008 which discusses a study that documents an increase in property value as a result of nearby waters meeting water quality standards.

Comment ID 0368-cp.001.005

Author Name: Myers Kenneth

Organization: Borough of Huntingdon

EPA cannot provide "Reasonable Assurance" that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0368-cp.001.007

Author Name: Myers Kenneth

Organization: Borough of Huntingdon

EPA cannot provide "Reasonable Assurance" that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0374-cp.001.002

Author Name: Hartgrove Charles

Organization: Town of Ashland, Virginia

Other EPA documents urban stormwater costs for the TMDL have been estimated at \$7.9 billion/yr. We understand that the CWP has reported costs on the order of \$88,000/ac for urban retrofits. These costs have been translated as roughly \$700 to \$1,800/household/yr for urban stormwater management alone during 15-yr implementation period. These costs are extremely high if not unaffordable.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0374.1.001.003

Author Name: Hartgrove Charles

Organization: Town of Ashland, Virginia

We understand that in other EPA documents urban stormwater costs for the Bay TMDL have been estimated at an annual cost of \$7.9 billion. Similarly, we understand that the Center for Watershed Protection has reported costs on the order of \$88,000 per acre for urban retrofits. To translate these types of costs estimates to the household level, last month a national engineering firm reported to the Virginia Municipal Stormwater Association ("VAMSA") that EPA's Draft TMDL's costs may be on the order of \$700 to \$1,800 per household per year, for urban stormwater management alone, during the 15-year implementation period. Obviously, costs in that range are extremely high if not completely unaffordable.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0378.1.001.005

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

The investments being made by significant industrial facilities in the basin must be viewed in the context of a business climate that is best described as extremely challenging -- where virtually all entities have been affected by a recession of global dimensions, and where efforts to preserve employment have been seriously strained. Many of our Chamber members are enduring costs that cannot be readily passed on to customers, given the nature of global competition and the minimum margins allowed in a competitive market - where producers in other regions or other parts of the world do not face such costs.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0379.1.001.003

Author Name: Shields Wyatt

Organization: City of Falls Church, Virginia

Although there is a limited amount of information available to assess how much it will cost to implement EPA's Draft TMDL. A national engineering firm with expertise in this area has recently prepared an estimate for how much it would cost Virginia's MS4 localities over a 15 year term, solely to treat 50% of existing impervious coverage. Shockingly, this analysis concludes that for urban stormwater controls, the TMDL would have an annual, per household cost of \$678 per year in 2011 and possibly as high as \$1,717 in 2025. Given the current economic conditions, these initiatives could not be coming at a more difficult time.

One of the main limitations on fully accomplishing the Bay restoration has been the tremendous cost. EPA's failure to consider cost, cost-effectiveness, or cost-benefit in its Draft TMDL ignores an important, maybe fundamental, aspect of the problem. We recognize that TMDLs do not typically address cost issues and that debates about the feasibility and cost of implementing a TMDL are typically the province of a use-attainability analysis (UAA). However, EPA has clearly stated during regional meetings that it will not allow a UAA with regard to the Chesapeake Bay; foreclosing this ordinarily available and lawful option. A sound strategy for improving water quality to levels required by EPA will not succeed unless the economic costs associated with these efforts are fully understood, and a plan is developed for distributing these costs among the different levels of government.

Response

Please see response to 0159.001.001 to address economic impacts. For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0381-cp.001.001

Author Name: Thompson Jeff

Organization: Historic East Baltimore Community Action Coalition, Inc. (HEBCAC)

- It is critical for our environment, our economy, and our quality of life that we restore the Chesapeake Bay to health.

Response

EPA appreciates the support of this comment.

Comment ID 0382-cp.001.003

Author Name: Combs Tina

Organization: Chamber of Commerce, Martinsburg and Berkeley County, West Virginia

Because our publicly owned wastewater facilities in Berkeley County are not currently designed or required to remove nitrogen and phosphorus from the waste stream, significant capital investment in new treatment processes will be required. In addition, increased operations and maintenance expenditures will be necessary to operate and dispose of by-products generated by the new processes. The required investments for nutrient controls will raise sewer rates for customers in Berkeley County an estimated 40% to over \$66 per month for the average residential user. Rates for commercial and industrial users would likewise increase 40% over current rates. The costs of the nutrient removal processes will also likely result in a deferral or cancellation of other critical infrastructure extensions and/or improvements.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0382-cp.001.005

Author Name: Combs Tina

Organization: Chamber of Commerce, Martinsburg and Berkeley County, West Virginia

Berkeley County must not only reduce current levels of discharge, but must also account for and limit new and increased flows. Additional discharge resulting from development may be allowed only with corresponding nitrogen and/or phosphorus reductions elsewhere to achieve a "net zero" pollution rate. This will severely limit future economic growth opportunities for Berkeley County and effect land use restrictions. The "net zero" pollution rate will decrease development opportunities and act as a disincentive for business growth, both commercial and agricultural, in Berkeley County, if not the shrinking of industrial and agricultural activity in the Eastern Panhandle as a whole. This means lost job opportunities and lost revenue for Berkeley County as well as West Virginia.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0390-cp.001.005

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

EPA cannot provide "Reasonable Assurance" that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public.

Response

The existence of the NPDES regulatory program and the issuance of an NPDES permit(s) provide the reasonable assurance that the WLAs in the TMDL will be achieved. That is because federal regulations implementing the CWA require that effluent limits in permits be consistent with "the assumptions and requirements of any available [WLA]" in an approved TMDL [40 CFR 122.44(d)(1)(vii)(B)].

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources. With regard to WIP backstops, please see the response to comment 0067.1.001.009.

Comment ID 0390-cp.001.007

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

EPA cannot provide "Reasonable Assurance" that placing significantly lower limits on point sources (with many industrial point sources below the limit of technology) will be implemented and successful.

This approach exasperates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs,

the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0399.001.007

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, it is now projected to cost New York State as much as \$250 million over the next 15 years to retrofit and reconstruct existing infrastructure as a result of the EPA proposed limits, and

WHEREAS, it is not technologically possible for New York State to meet the EPA's proposed regulatory goal despite the expenditure of an estimated \$250 million; and

WHEREAS, New York State will not benefit economically from recovery of the Bay and therefore will receive no return on the estimated \$250 million to retrofit and reconstruct existing infrastructure as a result of the EPA proposed limits

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources. Also, please see the response to comment 0267.1.001.006 and the response to comment 0080-cp.001.002 which are specific to NY.

Comment ID 0399.001.013

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, the EPA's discriminatory, regulatory process disproportionately burdens New York State farm communities with costly mandates, weakens our rural economies, disrupts local food systems and provides no significant additional water quality protection for the Chesapeake Bay Watershed; and

WHEREAS, the EPA has failed to conduct a comprehensive environmental impact analysis of the implementation of TMDL including but not limited to assessment of socioeconomic related impacts

Response

EPA is conducting a socio-economic impact study as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water

quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to comment 0267.1.001.006 and the response to comment 0080-cp.001.002 which are specific to NY.

Comment ID 0399.001.015

Author Name: Comment Anonymous

Organization: Town of Erwin, New York

WHEREAS, in order to satisfy EPA's regulatory goals without confirmation of water quality improvement, the EPA has not ensured realistic delivery of needed funding and technical assistance and has not provided regulatory flexibility to allow for implementation of continually improving on-farm practices in response to site-specific environmental variables; and

WHEREAS, each and every day farmers across New York work to improve their environmental sustainability, recognizing that appropriate natural resource management is critical to maintaining success of their businesses for future generations; supporting farmers in these endeavors is how government can best aid agriculture in protecting water quality; and

WHEREAS, the Town of Erwin supports state and locally driven collaborative initiatives which effectively use federal environmental funds and specifically address areas of high environmental risk and employ a farm-specific focus, such as NYS Department of Agriculture and Market's Agricultural Environmental Management Program

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 regarding agricultural funding. Also, please see the response to comment 0267.1.001.006 and the response to comment 0080-cp.001.002 which are specific to NY.

Comment ID 0400.001.001

Author Name: Smith F.

Organization:

Forgive me for including these printed pages in my reply to you. They will express my views better than I could, being an old (95 years) uneducated farmer.

I have always attempted to prevent run-off of my manure. It is too valuable. I have planted no-till for thirty-five years. I

have kept my soil in shape to prevent run-off.

Our farm produces a large tonnage of poultry litter. Your analysis indicates too much phosphorous for our corn and soybean crops. Therefore, we must sell and haul this litter to another watershed. We receive about 38 dollars per ton for it delivered. Included is many tons of nitrogen at the same price. If a crop calls for nitrogen, we have to pay over five hundred dollars per ton.

This is slowly draining the resources from our farm and someday we will just have to quit farming. Thanks to oysters and crabs in Chesapeake Bay.

Response

EPA appreciates all efforts made to keep nitrogen, phosphorus and sediment pollution out of the Bay. For information on agricultural funding sources, please see the response to comment 0139.1.001.006.

Comment ID 0402.001.002

Author Name: Campaign Mass

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Second : Many of the practices and requirements being discussed will be very costly to implement. High cost regulations without offsetting economic returns will place an extremely heavy burden on our farms and families - especially for those of us who don't accept government cost share. We hope required cures will be cost effective and have an implementation window long enough to allow them to be repaid with earnings.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire

for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0402.001.004

Author Name: Campaign Mass

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fourth: Proposed practices will place significant economic burden on agribusiness-especially poultry integrators . These businesses could easily shift to other areas of the country with less stringent and less costly environmental requirements . Our family farms may lose income generating opportunities and no longer be viable if a shift like this occurs.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0404.001.001

Author Name: Barnhart Lowell

Organization:

Stop and think of the hardships this TMDL will cause tax payers in allready very hard times. Please do not do it.

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Comment ID 0411.1.001.002

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

2. The City is facing layering of multiple requirements in the area of stormwater regulation. The State is considering possible expansion of the Chesapeake Bay Act, new State stormwater regulations, and the Watershed Implementation Plan (WIP) connected with the Bay TMDL requirements for which the City does not have resources to administer or to finance. Estimates in the range of \$7 - \$10 billion dollars have been quoted to fulfill the TMDL requirements in the Bay watershed. If the plan is approved it can not be an unfunded mandate. At a recent Stormwater Symposium sponsored by Virginia Tech, the cost to implement just the retrofit requirements were placed at \$700 per household per year. Most stormwater utilities in the Commonwealth range between \$1 - \$20/month. This would significantly impact residents and businesses in the worst economy experienced in over a generation.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources. With regard to EPA's rationale behind WIP backstops and how it has changed, please see the response to comment 0067.1.001.009 and section 8 of the TMDL.

Comment ID 0412.1.001.003

Author Name: Lohr Matthew

Organization: Virginia Dept. of Agriculture and Consumer Services

There is a general consensus that it would be in the best interest of Virginia agriculture and the environment to keep our Bay land in productive, profitable family farms. However, the draft TMDL is calling for more government regulation at a time when farm families are experiencing tough economic times. We expect that more of these families may be forced to sell their farms in response to new, costly restrictions placed on their operations.

Response

It is not EPA's intention to put any farms or other businesses out of business. For information on agricultural funding sources, please see the response to comment 0139.1.001.006.

Comment ID 0414.1.001.003

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Further, we believe that the TMDL should be re-drafted in response to all comments and questions and to reflect the severe impacts of the demand of economic resources required to comply with the re-drafted TMDL. Rather, the Pennsylvania Department of Environmental Protection should be allowed to continue with the implementation of its Chesapeake Bay Tributary Strategy (CBTS).

Response

EPA has revising the final TMDL based on the numerous comments received during the public comment period. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0414.1.001.006

Author Name: Myers George

Organization: Milton Regional Sewer Authority

In the case of Milton Regional Sewer Authority, should cap loads be reduced from the current levels based on design capacity and 6 mg/l total nitrogen and 0.8 mg/l total phosphorus to limit of technology because other segments fail to meet their targets, it is likely that we would be facing increased capital expenses of over \$6 million and increased operations and maintenance costs of \$0.8 million per year. In addition, it is likely that additional lands would need to be purchased to site the required additional treatment units.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA

established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0414.1.001.010

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Environmental Justice Threatened

The draft TMDL ignores the cost impact of the backstop limits to be imposed on Pennsylvania POTW's. EPA has not considered the environmental justice of such re-allocation given that larger populations of minorities and low and moderate income families reside in the cities and boroughs that are served by public sewers than in the agricultural and developed segments.

In the case of Milton (as is typical in other municipalities), over 50 percent of the population is of low and moderate income. These will be the people paying the cost of the additional treatment capital and operation and maintenance costs for meeting the backstop limits because those in the agricultural community would not be taking steps to address their non-point source nutrient discharges. It is inappropriate to require low income minorities to pay a disproportionate share due to the inactions of other non-minority, more affluent sectors.

Has EPA considered the environmental justice of its proposed backstop limits and has it sought outreach to representatives of minority and low and moderate income residents regarding the disproportionate impact of such approach?

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0419.1.001.008

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

V. THE CHLOROPHYLL-a WATER QUALITY MODEL SHOULD NOT BE USED TO ESTABLISH THE JAMES RIVER ALLOCATIONS

It does not appear that EPA's use of the chlorophyll-a water quality model to establish the James River allocations played a direct role in EPA's failure to include WLAs for captured CSS in the draft TMDL. However, use of this model and the resulting dramatic cuts in the James River allocations will have significant adverse consequences for Richmond's and Lynchburg's CSO control programs by greatly increasing their overall cost of wastewater treatment; thus making an already immense financial burden even greater. As explained above, both cities are already burdened with the highest wastewater rates in the state and have committed to future CSO control costs totaling over \$700 million in today's dollars. Preliminary estimates indicate that the backstop allocations in the draft TMDL would further increase the combined total cost of storm water control and wastewater treatment (exclusive of CSS control) for the cities to as much as \$1.7 billion and increase their total wastewater costs to over three percent of MHI. Although the cities employ different rate structures to fund the cost of their water quality programs (wastewater treatment, CSO control, and storm water), it is their residents who bear the burden of paying for these programs. There is a limit to their ability to pay, and it now appears that the combined costs of the cities' CSO control programs together with the added costs that would be imposed by the James River backstop allocations are beyond their individual financial capabilities. Moreover, it is apparent that the chlorophyll-a model-based allocations do not have a sound scientific basis.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please refer to the response to comment 0379.1.001.006 which speaks directly to the watershed models used. For additional information on your comment regarding the James River please see the response to Comment ID 0436.1.001.027, 0288.1.001.016.

Comment ID 0419.1.001.010

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

In addition to unresolved flaws in the model, the model predictions are unable to reliably distinguish between model scenarios with immense cost implications for Richmond and Lynchburg as shown in the following knee-of-curve analysis, which was prepared by one of the Communities' consulting engineers, Greeley and Hansen.

Figure 4 - Knee-of-the-Curve Analysis for James River Chlorophyll-a WQS [Please see Figure 4 in page 15 of the original letter (Docket ID EPA-R03-OW-0736-0419.1)].

Figure 4 shows the estimated capital costs of attaining the chlorophyll-a criteria against the percent attainment rate. The capital costs include estimates for basin-wide wastewater treatment plant reductions, agricultural BMPs, and urban runoff controls necessary to meet the allocations identified by EPA for the scenarios identified in Figure 4. The wastewater treatment plant capital costs are a function of design flows and level of treatment (biological nutrient removal, enhanced nutrient removal and limit of technology). Agricultural capital costs are based on BMP unit cost per acre and the BMP assumptions used in the Phase 5.3 Model. The urban runoff capital costs [FN6] are based on the performance associated with the runoff reduction method for an estimated amount of retrofit controls that could be installed in a locality, which represents only a portion of the urban runoff costs. The costs for the remainder of the urban

runoff reductions needed to meet the allocations would be achieved with storage and reuse. The estimated capital costs were prepared for the following EPA Scenarios:

- '91-'00 Base Scenario: Point "A" represents the James River TN and TP loading of 36.9 and 3.3 million pounds per year, respectively.
- EPA's Tributary Strategy: Point "B" represents the James River TN and TP portion of the Bay-wide loading, which is 27.5 and 3.3 million pounds per year, respectively.
- EPA's James Chl-a Compliance: Point "C" represents the James River TN and TP loading of 23.5 and 2.35 million pounds per year, respectively. EPA has selected this scenario as the basis for compliance with the James River chlorophyll-a criteria. EPA also refers to this scenario as "James Level of Effort at 1/2 Potomac". In Appendix J to the TMDL Report, EPA states "In the James, the nutrient loads are equivalent to the level of effort halfway between Virginia's portion of the Potomac and the James for the 190/12 Loading Scenario."
- E3 (Everything, Everywhere, by Everybody): Point "D" represents the James River TN and TP loading of 16.1 and 1.5 million pounds per year, respectively. EPA considers this to be the "theoretical maximum levels of managed controls on all pollutant load sources". There are no cost and few physical limitations to implementing controls for point and nonpoint sources in the E3 scenario. This scenario is used with the No-Action scenario to define the "controllable" loads, i.e., the difference between No-Action and E3 loads." See TMDL Report at Appendix J.

The knee-of-the-curve analysis determines where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. There is a steep inflection at Point "B" that represents the knee-of-the-curve. Any reduction beyond Point "B" lacks a viable cost-to-benefit ratio and does not reflect a reasonable level of attainment. EPA has selected Point "C" as the basis for the James River compliance with the chlorophyll-a criteria, which is about half way between Point "B" and EPA's E3 scenario (Point "D"). If one assumes that the model predictions are accurate (about which there is substantial doubt), at Point "B", the James River would be 93 to 94 percent compliant with chlorophyll-a criteria compared to 99 percent at Point "C". However, the true difference in chlorophyll model output between Points "B" and "C" is only 2 to 3 micrograms/L (three parts in a billion). Additionally, the sampling and testing accuracies for physical water measurements is 1 to 3 micrograms/L. In other words, even if the loadings between Points "B" and "C" were achieved, it is unlikely that the difference in James River chlorophyll-a concentrations could be measured. The difference in the estimated cost of achieving the loadings between Points "B" and "C", on the other hand, is over \$10 billion.

[FN6] Urban nutrient management was not included. The capital costs are based on meeting the waste load allocation for the Urban Runoff identified in Appendix Q-1 of the TMDL report.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. For additional information on your comment regarding the James River please see the response to Comment ID 0436.1.001.027.

Comment ID 0420-cp.001.001

Author Name: Rodgers Steve

Organization: Moriah Farm LLC

We oppose the Chesapeake Bay restrictions on fertilizer applications which will decrease crop yeilds substantially . This will create fianicial hardships for both farmers and consumers.

We practice no till methods and are very cautious of run off's . We are committed to being good stewards of the environment and the Chesapeake Bay.

We can appreciate the EPA's concerns to preserve the Bay for future generations.

Response

EPA appreciates your concerns and efforts to reduce run off to the Chesapeake Bay. EPA has not imposed any restrictions on the use of fertilizer application in the Bay Watershed. A Nutrient Management Plan would address the appropriate amount of fertilizer to apply to fields and EPA recommends those plans be kept up to date and followed.

Comment ID 0428-cp.001.001

Author Name: Thomas Steven

Organization: Fulton County Planning Commission

The Fulton County Planning Commission strongly objects to the EPA's proposed TMDL for the Chesapeake Bay. Passing of the new regulations would cause significant economic hardship of the municipal authorities and residents linked to those systems. The proposed TMDL regulations are absolutely not economically feasible at this time in Fulton County. According to the Bureau of Labor and Statistics (Sept. 2010), Fulton County's unemployment rate is 13.7%. This is 2nd highest rate in Pennsylvania. Additionally, our largest plant, in McConnellsburg Borough, has already invested thousands of dollars into an upgrade project to meet the current requirements of 6 mg/l TN and 0.8 mg/l TP. Requiring them to meet more stringent loads would cause extreme hardship on the end-users, the residents.

While the intent of the regulations is commendable, the Fulton County Planning Commission can not support the proposed TMDL because of the severe economic impact that would be placed on our local communities.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA

established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please note that a TMDL is not a federal regulation.

Comment ID 0431.1.001.001

Author Name: Tolbert James

Organization: City of Charlottesville, Virginia

Our most significant concerns with EPA's Draft TMDL and Virginia's WIP relate to the lack of transparency in this regulatory process, particularly regarding lack of disclosure and analysis of costs related to urban stormwater. We understand that in other EPA documents urban stormwater costs for the Bay TMDL have been estimated at an annual cost of \$7.8 billion. Similarly, we understand that the Center for Watershed Protection has reported costs on the order of \$88,000 per acre for urban retrofits. To translate these types of costs estimates to the household level, last month a national engineering firm reported to the Virginia Municipal Stormwater Association ("VAMSA") that EPA's Draft TMDL's costs may be on the order of \$700 to \$1,800 per household per year, for urban stormwater management alone, during the 15-year implementation period. Obviously, costs in that range are extremely high if not completely unaffordable.

The City of Charlottesville has performed an analysis of the potential costs of the proposed Chesapeake Bay TMDL and the Virginia Watershed Implementation Plan. If the current EPA backstop requiring "50% of urban land to meet aggressive performance standards through retrofit/redevelopment" remains in the TMDL, the resulting annual costs to the City of Charlottesville could be as much as \$15.6 million. Even without this backstop, the annual cost of this TMDL on the City is expected to be in the range of \$1.6 million to \$7.8 million per year. There are more cost effective ways than urban retrofits to achieve the needed nutrient reductions to the Bay. Treatment strategies to significantly reduce the agricultural loads, which are more cost effective per pound of nutrient removed, need to be explored.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0432.1.001.004

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

EPA has not provided any meaningful analysis of the economic impacts of the regulatory measures it is pursuing in the Chesapeake Bay, from either a regional perspective or from the perspective of individual taxpayers, ratepayers businesses and farms.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0432.1.001.006

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

A "pollution diet" should not equate to economic starvation. A plan that does not provide affected persons the flexibility and meaningful opportunity to analyze the relative effects of pollution reduction measures and manage and finance the relative costs needed for implementation will not only alienate those for whom EPA has expectations of additional reduction. It will ultimately result in wasteful spending toward activities that have negligible environmental benefit and are capriciously performed under threat of regulatory sanction.

Response

Please see response to 0159.001.001 to address economic impacts.

Comment ID 0435.1.001.016

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

It is estimated that the cost to the residents of Norfolk would be approximately \$1.4 billion by 2025 to reduce phosphorus loads to comply with the backstop allocations. This cost includes designing BMPs that would function effectively on the flat, low-lying terrain and in the high water tables that make up the physical setting of the City. Furthermore, the cost estimate outlined above does not reflect the added cost of acquiring the land needed for the installation of structural BMPs and long-term maintenance of those systems.

Neither the EPA nor the Commonwealth has explained how BMPs will be accounted for when determining compliance with the nutrient and sediment allocations. It is unknown how the efficiencies of structural BMPs will be set. Currently state storm water regulations do not acknowledge the added efficiencies for BMPs in series. Further, EPA and Virginia fail to account for non-structural BMPs.

Additionally, it is impossible to predict the full extent of the socio-economic consequences of attempting to undertake an effort of this magnitude because such an undertaking has never been tried before. However, we can state with confidence that there is no assurance that the load reductions that would be required to achieve the backstop allocations can be accomplished by the 2025 deadline, and that, on a pound-for-pound basis, the cost would be out of proportion to any water quality benefits.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources.

For discussion of the WIP backstops, please see the response to comment 0067.1.001.009 and Section 8 of the TMDL.

EPA has not taken socioeconomics into account as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0435.1.001.019

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

The Hampton Roads Planning District Commission (HRPDC) appreciates the opportunity to submit these joint comments on behalf of the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, and the counties of Isle of Wight, Gloucester, James City, Surry, and York ("Hampton Roads Localities" or "Localities") on Virginia's September 2010 draft Phase I Watershed Implementation Plan (WIP).

The cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach own Municipal Separate Storm Sewer Systems (MS4s) that operate under individual Phase I MS4 NPDES permits issued by the Virginia Department of Conservation and Recreation (DCR), while the cities of Poquoson, Suffolk and Williamsburg, and the counties of Isle of Wight, James City, and York own MS4s that operate under a general Phase II MS4 permit issued by DCR. At present, Gloucester and Surry are not designated as MS4s, but could be so designated in the future due to population growth or modification of the criteria used to designate MS4s.

A. Concerns with the WIP

The Hampton Roads Localities appreciate Virginia's efforts to incorporate flexibility and cost effectiveness into the WIP;

however, the James and York river basin urban runoff sector allocations in the WIP would impose massive financial costs on the Hampton Roads MS4s in what surely would be a futile effort to reduce phosphorus loads by an average of almost 80 percent. As explained below, even with the larger backstop phosphorus allocation proposed by the U.S. Environmental Protection Agency (EPA) (average 54 and 59 percent phosphorus reductions for the James River and York River, respectively), the Localities would still have to expend an estimated \$9.8 billion, plus the cost of land acquisition, to achieve the backstop sector allocations. Although the State's proposed credit exchange concept would have helped to reduce the cost of compliance in the near term, we fear that the WIP's long-term financial consequences could have been even worse for the reasons listed below.

We also appreciate Virginia's efforts to provide relief to the urban runoff sector by proposing to make credits from the point source and agriculture sectors available to assist the MS4s in attaining their sector allocations. However, even if EPA had endorsed the State's credit exchange proposal, it is unlikely that it would have been sufficient to avoid the immense long-term financial consequences associated with an obligation to reduce phosphorus loadings by almost 80 percent for several reasons. First, there is no assurance that the credits would be generated when and where needed; second, those credits generated from excess flow capacity would only be available to the MS4s on a temporary; and finally, the reductions that would be required of urban runoff with the WIP allocations are so great that the demand for credits could exceed the supply, thus driving up their cost and limiting their availability to the Localities, particularly if the Localities are forced to compete with private developers for the credits.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources.

For discussion of the WIP backstops, please see the response to comment 0067.1.001.009 and Section 8 of the TMDL.

Comment ID 0435.1.001.020

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Impacts of the Proposed Allocations on the Hampton Roads Localities

Although the Hampton Roads Localities would fare better under EPA's James and York river basin backstop urban runoff sector allocations, the more than 50 percent reduction in phosphorus required to achieve the backstop allocation is still beyond a level that is practicable of attainment.

It is impossible to predict the full extent of the socio-economic consequences of attempting to achieve the backstop allocations because an undertaking of this magnitude has never been tried before. However, we can state with confidence that there is no assurance that the load reductions that would be required to achieve the backstop allocations can be accomplished by EPA's 2025 deadline, and that, on a pound-for- pound basis, the cost would be totally out of portion to any water quality benefit.

On average, the Localities and their residents would have to treat between 68 and 74 percent of the urban land area within their jurisdictions in order to achieve the over 50 percent reduction in phosphorus needed to attain the backstop allocations. It is estimated that it would cost the Hampton Roads Localities approximately \$9.8 billion (\$1.05 billion annualized) to reduce phosphorus loads to the levels needed to comply with the backstop allocations after factoring in the added cost of designing BMPs that would function effectively on the flat, low-lying terrain and in the soils and high water tables that reflect the dominate topography and hydrology in the Hampton Roads area. As explained in the enclosed copy of our comments on the draft TMDL, this equates to an annual storm water fee of \$1,670 per household, and \$720 per person.

Further, this cost estimate does not reflect the added cost of acquiring the land needed for the installation and maintenance of the BMPs required to achieve the backstop allocations. On average, the Localities own less than 15 percent of the 68 to 74 percent of urban land area that would have to be treated to attain the backstop phosphorus allocations. The remaining reductions would have to be achieved with retrofits on private land, and since the Localities cannot force private land owners to retrofit in the absence of redevelopment requiring local land use approvals, the Localities would have to negotiate for the purchase of the land needed for the easements or acquire the land by condemnation. Land acquisition is an expensive and time consuming process that will add greatly to the cost and time required to achieve the reductions.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources.

For discussion of the WIP backstops, please see the response to comment 0067.1.001.009 and Section 8 of the TMDL.

EPA has not taken socioeconomics into account as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0436.1.001.002

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

The Hampton Roads Planning District Commission (HRPDC) appreciates the opportunity to submit these joint comments on behalf of the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, and the counties of Isle of Wight, Gloucester, James City, Surry, and York on the Environmental Protection Agency's September 2010 draft Chesapeake Bay Total Maximum Daily Load (TMDL).

The cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach own Municipal Separate Storm Sewer Systems (MS4s) that operate under individual Phase I MS4 NPDES permits issued by the Virginia Department of Conservation and Recreation (DCR), while the cities of Poquoson, Suffolk and Williamsburg, and the

counties of Isle of Wight, James City, and York own MS4s that operate under a general Phase II MS4 permit issued by DCR. At present, Gloucester and Surry are not designated as MS4s, but could be so designated in the future due to population growth or modification of the criteria used to designate MS4s.

At the Commission meeting on October 20, 2010, the HRPDC acted to endorse the following position and attached comments.

--The cost of achieving the urban runoff sector allocations per EPA's backstop allocations would place an unreasonable financial burden on the residents of Hampton Roads. The estimated \$1.05 billion in annual costs equates to a total average annual storm water fee of \$1,670 per household equates to 2.3 percent to 3.0 percent of median household income (MHI).

Response

Please see the response to comment 0067.1.001.009 and Section 8 of the TMDL for EPA's WIP backstop rational.

Comment ID 0436.1.001.012

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

Exhibit B [Comment Letter contains additional information in the form of an attachment. See original comment letter 0436.1] shows that the average 54 (James) and 59 (York) percent load reduction needed to achieve the backstop allocation for phosphorus would require treatment of approximately 68 and 74 percent of the urban land area in the James River and York River basins, respectively.[FN 3] The estimated total costs of treatment are approximately \$9.8 billion (or approximately \$1.05 billion per year [FN 4]) after factoring in the added cost of designing storm water controls that would function effectively on the flat, low-lying terrain and in the soils and high water table that dominate the topography and hydrology in the Hampton Roads area. [FN 5] However, as explained below, these estimated costs do not include the added cost of acquiring new easements and construction in existing utility easements.

The magnitude of the financial burden that would be imposed on the residents of the Localities cannot be overstated. As shown in Exhibit C [Comment Letter contains additional information in the form of an attachment. See original comment letter 0436.1], the estimated \$1.05 billion in annual costs equates to a total average annual storm water fee of \$1,670 per household, or \$720 per person. These fees, in turn, equate to 2.3 percent of median household income (MHI), and 3.0 percent of MHI when the fees imposed on non-residential land owners are passed onto the consumer. Expressed another way, the estimated annual cost of attaining the allocations (without adding the cost of easement acquisition) represents 118 percent of the Localities' 2009 total annual expenditures for public safety (police and fire) and 37 percent of their total annual expenditures for schools. Further, as high as the estimated treatment costs are, they do not tell the whole story.

[FN 3] Although Exhibit B shows that the percent of urban land area that would have to be treated to achieve the load reductions needed to attain the total suspended solids (TSS) allocations are greater than the area that would have to be

treated to attain the TP allocations, we have used TP as the benchmark for the cost estimates because it represents a mid-point in the percent reductions for TN, TP, and TSS. Further, the controls that will remove TP also serve to remove TSS. It is possible that the costs to achieve the TSS allocations could be higher than the cost to achieve the TP allocations in the York River basin.

[FN 4] In addition to the cost of designing and installing the controls, the estimated annual cost includes operation and maintenance costs and 30-year bond financing at a 5.5 interest rate.

[FN 5] The Localities evaluated three control scenarios to arrive at this cost estimate: (1) Scenario 1a - all best management practices (which includes voluntary urban nutrient management plans); (2) Scenario 1b - substituting storage for urban nutrient management plans; and (3) Scenario 1c - more reliance on storage than best management practices. See Exhibit C [Comment Letter contains additional information in the form of an attachment. See original comment letter 0436.1]. Scenario 1c was selected as the control scenario reflecting the level of effort that would be required to achieve the allocations given the topography, hydrology, and soils in the coastal region and the Localities' experience to date with urban nutrient management plans.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources.

For discussion of the WIP backstops, please see the response to comment 0067.1.001.009 and Section 8 of the TMDL.

EPA has not taken socioeconomics into account as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0439.1.001.002

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

In 2007, EPA stated those that benefit the most from the Chesapeake Bay Recovery must do more. This idea should be followed during the TMDL Allocation. Because of New York's position at the headwaters of the Bay, New York receives basically no economic benefit from the clean-up of the Bay, yet New York is being threatened with unfunded mandates, in a time, when the New York State is in dire financial stress which flows directly to county budgets. This financial stress of the state will limit the resources available in terms of implementation - to fund projects, and have technical staff available for implementation.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0439.1.001.005

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

Most farms cannot financially tolerate any additional unfunded mandates and additional regulations would force many out of business. Agriculture is the leading industry in the Upper Susquehanna region of New York, so to unnecessarily loose more farms, is an economic lose to the small rural communities the Basin. Farms going out of business would also be an additional lose of a source of locally produced food and jobs.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0439.1.001.010

Author Name: Littrell Judy

Organization: New York Association of Conservation Districts

New York does not receive any economic benefit from Bay clean-up, therefore, tidal states that do benefit economically from the clean-up, should be mandated to do more than what is being proposed for New York. If these unfunded mandates/reduction of load allocations with backstops, are placed on the back of the Upper Susquehanna Basin, it would severely damage the rural communities from an economic standpoint. Farms would go out of business, unemployment would rise, other small businesses would suffer, including support services like the Soil and Water Conservation Districts, and the tax base would be lost.

Response

Please see the response to comment 0267.1.001.006 addressing how New York's loading contribute to the downstream impairment in the Bay and the response to comment 0080-cp.001.002 addressing equity and the state of New York.

Comment ID 0446.1.001.004

Author Name: Beegle Douglas

Organization: Penn State University

A strategy must be developed to enable agriculture to meet the goals of the TMDL in a way that is sustainable. A common misconception is that more strict requirements for improved management practices to control nutrient losses will result in environmental improvement and economic sustainability. Farmer responding to global economics is what has driven this problem. If there were additional economic benefits to be derived from implementing more environmentally based management practices and BMPs, agriculture would already be doing this. The reality is that the economics of improved nutrient management for environmental quality are negative. The Chesapeake Bay Protection and Restoration Executive Order emphasized "Healthy Waters, Thriving Agriculture". Unless the negative economics associated with the structure of modern animal agriculture are addressed, "thriving agriculture" will not be possible under this TMDL as current drafted. If agriculture is given the where-with-all to change, it has been demonstrated over and over throughout our history that agriculture will respond positively. A fundamental underlying problem is that one of the reasons we have such cheap food in this country is that we are not paying for the environmental consequences of our current food production systems when we purchase our food. The reality is that if we what food produced in a way that does not result in water quality degradation, it will cost more and the food consumers not just the food producers should bear that cost. Improved management will automatically follow structural changes that provide appropriate incentives for change. This must be addressed as part of the TMDL if it is going to be successful. Any plan that assumes that we can simply manage our way to meeting the TMDL goals and maintain a viable sustainable agriculture is unrealistic. Ideally, in addition to improving nutrient management, emphasis must be placed on developing strategies for structural changes in the food system which recognizes and integrates the true cost of producing food without environmental degradation and pays for the other ecological, economical, and social benefits of agriculture as a land use in the watershed. Alternatively if policies cannot be developed to internalize these environmental costs in food production, these costs must be borne by public funds or the cost of addressing water quality concerns must be weighed against the other benefits of agriculture in the watershed and a decision to severely limited agriculture in the watershed may be necessary. The backstop plans in the TMDL recognize this reality of the costs associated with this TMDL because EPA is confident that these reductions can be achieved because point sources have the ability to pass the cost of environmental protection on to the consumer. Agriculture does not have this ability which is why EPA has little confidence in Ag NPS plans. Anyway you look at it there will be a substantial cost to achieving the goals of the TMDL. This must be explicitly recognized in any WIP. Someone has to pay for the TMDL. It is a matter of who and how that has not been addressed.

Response

In the TMDL, EPA is required to establish the loading reductions necessary to meet water quality standards given reasonable assurance, though establishing the funding or sources of funding necessary for implementation is beyond the scope of the TMDL.

Please see the response to Comment ID 0139.1.001.017.

For information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration and the response to comment 0139.1.001.006 addressing agriculture.

Comment ID 0449.1.001.003

Author Name: Farry K.

Organization: Excalibur Farms

Imposing solutions that do not produce the desired result is irresponsible. In this case, it will force my family out of farming. Since it appears from your report that suburban development does not pollute the Bay, perhaps we should sell the farm to a developer.

Response

The Chesapeake Bay TMDL establishes nutrient and sediment loads that originate from many sources in the Bay watershed. Point sources of nitrogen, phosphorus and sediment include municipal wastewater facilities, industrial discharge facilities, CSOs, SSOs, NPDES permitted stormwater (MS4s and construction and industrial sites), and CAFOs. Nonpoint sources include agricultural lands (AFOs, cropland, hay land, and pasture), atmospheric deposition, forest lands, on-site treatment systems, nonregulated stormwater runoff, streambanks and tidal shorelines, tidal resuspension, the ocean, wildlife, and natural background. The Chesapeake Bay models estimated loadings of nutrients and sediments from each of these sources and established the nutrient and sediment reductions needed in each watershed to meet water quality standards.

Agricultural lands account for 22 percent of the watershed, making agriculture one of the largest land uses in the area, second only to forests (58 percent). As such, agriculture is the largest single source of nitrogen, phosphorus, and sediment loading to the Bay through applying fertilizers, tilling croplands, and applying animal manure. Agricultural activities are responsible for approximately 44 percent of nitrogen and phosphorus loads delivered to the Bay and about 65 percent of sediment loads delivered to the Bay. While agricultural lands are responsible for a significant percentage of sediment and nutrient loads, other sources have been identified as significant. For example, in 2009, EPA estimates that urban and suburban development and runoff contributed to 16 percent of the sediment loadings, 15 percent of the phosphorus loadings, and 8 percent of the nitrogen loadings to the Bay (Phase 5.3 Chesapeake Bay Watershed Model 2009 Scenario).

For an outline of agricultural funding, please see the response to comment 0139.1.001.006.

Comment ID 0462-cp.001.002

Author Name: Blair C.

Organization:

2. I believe the cost of the Bay TMDL will be excessive for individuals, the agricultural community and municipalities. The EPA must conduct a non-biased economic impact analysis of the cost for all sectors, both public and private before moving forward.

Response

EPA will not be conducting an economic impact analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0462-cp.001.005

Author Name: Blair C.

Organization:

5. The currently proposed EPA regulation will create undue expense and uncertainty for individuals, businesses, farmers, and municipalities that will be counter-productive to the desired outcome for all who love the Chesapeake Bay.

Response

A TMDL is not a federal mandate. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0464.1.001.001

Author Name: Bush J.

Organization: Virginia Forest Products Association (VFPA)

Virginia's forest products industry is one of the State's largest manufacturing activities. A recent government sponsored economic study¹ shows that forestry and agriculture comprise the largest economic segment of the Commonwealth, with forestry contributing \$23 billion annually in total economic impact while providing jobs for 144,000 Virginians. Forests are the largest land use in the State, covering 62% of Virginia's land mass, and forest products related economic activity is found in every county and city of the Commonwealth.

Recent economic conditions have placed a severe toll on the industry ... easily the worst since the Depression, with many facilities closing their doors either temporarily or permanently. As an example, studies have shown the number of sawmills in the State in 2009 is one-half of the total found in 1999, just 10 years previous. Any additional regulatory

burdens placed on the industry, particularly those that have questionable cost vs. benefit ratios, will put many more facilities at risk.

Response

Cost benefit ratio plays no part in the TMDL for reasons discussed in the response to comment 0139.1.001.017. EPA reminds the commenter that the TMDL is not a Federal regulation.

Comment ID 0467.1.001.002

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

the Authority believes that the draft TMDL should be re-drafted in response to the following comments and questions and to reflect the severe demand on economic resources required to comply with the draft TMDL.

Response

In the instance that EPA receives comments on the TMDL that result in changes to the rational or document, EPA is making those changes. However, EPA will not be amending the TMDL to consider economics for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0467.1.001.009

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

B. Uncertainty of TMDL Requirements Will Trigger Delays in Compliance and Add Significant Costs

1. In the specific case of the Authority, should cap loads be reduced from the current levels based on design capacity and 6 mg/l total nitrogen and 0.8 mg/l total phosphorus to the limit of technology, because other sectors fail to meet their target loading reductions, it is likely that the Authority will face increased capital expenses of over \$50 million and increased operations and maintenance costs of \$4 million per year. In addition, it is likely that additional lands would need to be purchased to site the required additional treatment units.

Response

Please see the response to comment 0067.1.001.009 for discussion of WIP backstops and the response to comment 0501.1.001.005 for discussion of public sector point sources.

Comment ID 0471.1.001.003

Author Name: Greenfield Elizabeth

Organization: Richmond Association of Realtors (RAR)

On behalf of the 4,700 members of the Richmond Association of REALTORS (RAR), I am submitting comments regarding the proposed rule issued by the Environmental Protection Agency (EPA) on establishing a Total Maximum Daily Load (TMDL) for states in the Chesapeake Bay Watershed.

Of particular concern to our industry are the urban and suburban stormwater retrofits that would be required of existing properties} including state and local highways. It will be extremely costly for existing developments to install the required stormwater controls and the benefits to be gained by these expensive retrofits do not justify the costs. In addition, requiring retrofits on existing infrastructure such as roads and parking lots will be extremely costly for the government and businesses and very disruptive to the community.

RAR appreciates the EPA's efforts to improve the health of the Bay, but we urge you to slow the process down and truly calculate the costs of the TMDL compliance on local governments, businesses, and citizens in the areas that are already struggling with unemployment, foreclosures and shrinking budgets. Thank you for your consideration of these important issues.

Response

EPA will not be calculating the costs of the TMDL compliance for reasons discussed in the response to comment 0139.1.001.017. EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay by December 31, 2010. For consideration of public sector point sources, please see the response to comment 0501.1.001.005.

Comment ID 0473.1.001.002

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

Pennsylvania has been an integral partner in Chesapeake Bay restoration efforts since 1983. This leadership derives from the Commonwealth's set of agricultural stewardship firsts, including:

- The first mandatory farm nutrient management plans;
- The first nutrient management program to regulate nitrogen and phosphorus;
- The first EPA-approved regulatory program for concentrated animal feeding operations (CAFOs);
- The first Chesapeake Bay state to permanently preserve 20% (more than 3 million acres) of land in the watershed;

--The first Chesapeake Bay state to meet its goal to plant 3,736 miles of forest buffers by the year 2010. The state has planted a total of 3,894 miles of forest buffers along waterways since 2002; and
--The Commonwealth is home to the largest Conservation Resource Enhancement Program (CREP) in the entire nation. Pennsylvania's CREP delivers more than \$50 million in state and federal assistance and targets key edge-of-stream best management practices (BMPs) to maximize water quality.

While Pennsylvania has been a leader in agricultural stewardship, we also believe that the Chesapeake Bay TMDL must recognize and respect co-equal goals of clean water and economically viable farms; we cannot have one without the other. The TMDL must recognize the reality of the economic hardship that the state and many of its farms (and especially dairy farms) have experienced over the past three years and that are projected to continue to experience over the next one to two years.

Response

Although EPA agrees with the commenter's point and thanks the Dept of Agriculture for all work on improving water quality, we remind the commenter that we are not able stop short of meeting water quality standards when establishing the TMDL. Please see the response to comment 0139.1.001.006.

Comment ID 0473.1.001.010

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

- The WLAs proposed in the draft TMDL for wastewater treatment plants would result in a 6 percent additional reduction in TN at an additional cost to Pennsylvania citizens of over \$1 billion. Individual WLAs for all significant point sources will be ineffective.
- The WLAs proposed in the draft TMDL for stormwater sources are not appropriate. The approach of requiring treatment of 100 percent of all urban land with either impervious reductions or retrofits is not practicable or attainable particularly for many older generation towns and cities. The feasibility and cost to attain such reductions is far in excess of the local communities' resources and makes the cost/benefit ratio questionable at best.

Response

Please see the response to comment 0501.1.001.005 for a discussion of public sector point sources. EPA has not considered cost/benefit ratios as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0475.1.001.004

Author Name: Frazier Katie

Organization: Virginia Agribusiness Council

C) Costs associated with implementing the TMDL and current economic conditions

Virginia officials recognized in their cover letter submitted to EPA on November 3, 2010 that the Bay TMDL and Virginia's WIP will have a high cost for compliance for all sectors. While we agree that there is a benefit of clean waters within the Bay and local watersheds, the economic costs for compliance must be balanced. Water quality programs cannot be developed in a vacuum without considering the impacts to all economic sectors. To this end, we strongly urge EPA to conduct a non-biased economic impact analysis and have encouraged Virginia to do so as well. Experts from land-grant universities from across the watershed could be called upon to evaluate the actual costs of meeting water quality standards for businesses, citizens, localities, states, and the federal government.

Agriculture is able to estimate some costs of TMDL implementation based on existing data of implementing Ag BMPs through current state and federal programs. For example, Virginia estimates that full implementation of just one practice (cattle fencing) could cost more than \$800 million to implement. Fencing cattle from streams, putting in crossings, providing alternative watering systems, etc. costs on average \$30,000 for a Virginia cattle farmer. Virginia cattle producers, many of whom farm part-time, do not have extra income from their farming operation available to afford an additional \$30,000 to implement this practice.

The 2009 Needs Assessment of the Virginia Natural Resources Commitment Fund states that Ag BMP cost-share funds needs will reach \$63.2 million annually in 2025 to get 60% NPS reduction goals from agriculture. This is only funding from the state and does not account for federal government's traditional share of funding or the shared match that comes from farmers. Current funding estimates are only based upon the cost of installing the practice, they do not account for costs such as loss of productive land, replacing practices when weather damages occur, and fluctuations in market conditions.

Current economic conditions within the agribusiness industry are extremely difficult. Just as the rest of the nation's economy has suffered over the past several years, agribusiness sectors have also suffered from several years of profit losses, increased input costs, and limited credit options for individual producers, companies, and operations. The current economic condition in our agribusiness industry simply means that for some, additional monetary resources necessary to meet new regulatory burdens is non-existent. Federal backstops, including new permitting of small dairies and additional, burdensome CAFO requirements, will be enough to drive some farmers out of business if implemented. EPA's federal backstops requiring more unregulated lands to meet MS-4 (urban lands) requirements may cause significant economic hardship for urban landowners, thereby impacting the green and turfgrass industries.

To meet reduction goals, cost share funding is more than critical in meeting the demands of EPA. Agriculture, lawn care, turfgrass, forestry, have all seen depressed profits, just as the State and local governments have been facing historic deficits. Individual businesses, farmers, and the State cannot meet this unfunded mandate from EPA without significant federal and state funding. These funds must be actually appropriated dollars, not just potentially empty promises.

Response

Please see the response to comment 0038.1.001.024 which outlines the federal effort towards the Bay and the response to comment 0139.1.001.006 addressing agricultural funding. EPA will not be conducting a cost analysis for reasons discussed in the response to 0139.1.001.017.

Comment ID 0480.1.001.016

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

IV. The Economic Argument for a Clean Bay

Congress has recognized that the Chesapeake Bay is a "national treasure and resource of worldwide significance." [FN 24] Valued at over 1 trillion dollars, a restored and protected Chesapeake Bay is essential for a healthy and vibrant regional economy. Failure to "save the Bay" threatens this economic driver and, in fact, economic losses have already occurred due to water quality degradation throughout the watershed. More importantly, investing in clean water technology creates jobs, generates economic activity, and can save money in the long run.

The Bay supports Important Commercial and Recreational Fisheries that Have Been Degraded by Poor Water Quality Perhaps no other creature better exemplifies the Chesapeake Bay than the blue crab, *Callinectes sapidus*. For more than a half century, the blue crab has been at the apex of the Bay's commercial fisheries. Over one-third of the nation's blue crab harvest comes from the Chesapeake Bay. The average annual commercial harvest in Maryland and Virginia between 1999 and 2008 was about 55 million pounds. [FN 25] The dockside value of the blue crab harvest Baywide in 2008 was approximately \$ 70 million. [FN 26] The recreational fishery also provides a significant financial off-set for Bay residents - the cost of catching crabs is far less than having to buy them.

The overall trend, however, since the 1990's has been a decrease in landings despite increased crabbing effort. [FN 27] In addition, the number of crabs one year and older dropped from 276 million in 1990 to 131 million in 2008. [FN 28] When the broader impact on restaurants, crab processors, wholesalers, grocers, and watermen is added up, the decline of crabs in the Bay meant a cumulative loss to Maryland and Virginia of about \$640 million between 1998 and 2006. [FN 29]

As a result of the low population level, in 2008, Maryland and Virginia issued severe crabbing restrictions, in an attempt to restore the population. These restrictions placed severe economic hardship on Chesapeake Bay crabbers. In response, members of Congress from Maryland and Virginia requested federal disaster relief for Bay crab fishermen. In September, 2008, the Secretary of Commerce determined that the Chesapeake Bay soft shell blue crab fishery had undergone a commercial failure as defined under the Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1861). In January 2009, the Department of Commerce allocated \$10 million of disaster relief to each state. This was a substantial taxpayer expense that will not be needed in the future if the Bay is restored to its former health.

In 2009, the number of spawning-age crabs rebounded to 223 million. [FN 30] Nonetheless, poor water quality continues to limit crab populations in the Chesapeake Bay. On average, over the last 10 years, more than 75% of the Chesapeake Bay and its tidal rivers have had insufficient levels of dissolved oxygen. [FN 31] Low oxygen levels drive blue crabs from their preferred habitat and kill many of the small bottom organisms on which the blue crabs feed. [FN

32] The low dissolved oxygen conditions caused by excess nutrients are the primary reason large sections of the Bay have become unsuitable as blue crab habitat. In addition, a study by the University of Maryland demonstrated that decreases in dissolved oxygen can reduce crab harvests and revenue to watermen. [FN 33]

Poor water clarity also has impacted crab populations. Poor water clarity has reduced the amount of underwater grasses necessary to protect juvenile crabs, molting crabs, and adults from predation. Studies have shown that crabs living in areas with little or no underwater grasses suffer higher mortality. [FN 34] Water clarity in the Bay has been decreasing since the 1990s and in 2009, only 26% of the Bay had acceptable water clarity. Until water quality improves, the blue crab population will not fully recover. [FN 35]

Another critical Bay species, commercially, recreationally, and as an important part of the Bay ecosystem, is the oyster. From the 1800s to the mid-1900s, the commercial oyster industry employed thousands of people catching, selling, shucking, and shipping oysters to market. Hundreds of skipjacks, sail powered dredges, plied the waters of the Bays in search of the delectable oyster. The industry generated millions of dollars a year to the Bay economy. Until the mid-1980s, the oyster was the leading commercial fishery in the Bay. Like the blue crab, Bay oysters spawned a rich cultural heritage.

In addition to their commercial and recreational value, oysters improve water quality because they are filter feeders. An individual oyster pumps over 50 gallons of water a day through its gills which strains out food, chemicals, nutrients, and sediment. In addition, oyster reefs provide valuable habitat for countless Bay creatures, most notably finfish, and serve as popular fishing areas.

Unfortunately, a combination of overharvesting, disease, and poor water quality has decimated the oyster populations in the Chesapeake Bay to around 1% of historic levels. Silt washed by rain from urban areas and agricultural fields can bury oyster beds, particularly those that have been flattened by dredges. [FN 36] Extended periods of zero oxygen conditions can be fatal to oysters. [FN 37] In addition, recent studies have indicated that low oxygen levels can stress the immune systems of oysters, making them more susceptible to disease. [FN 38] Pollution has also resulted in the closure of shellfish beds to commercial harvesting. Threats from sewage and bacteria forced Maryland and Virginia to close or restrict oyster harvesting in 223,864 acres of the Bay and its tributaries in 2008, about 8 % of the total shellfish beds. [FN 39] The decline of the Bay oyster over the last 30 years has meant a loss of more than \$4 billion for Maryland and Virginia. [FN 40]

The rockfish (also known as striped bass) has been and remains the most popular commercial and recreational fish in the Bay, generating roughly \$500 million of economic activity related to fishing expenditures, travel, lodging, etc. [FN 41] Faced with a catastrophic collapse in the fishery, commercial and recreational fishing for rockfish were banned in the Maryland portion of the Bay from 1985-89 and in Virginia during 1989. [FN 42] The dramatic decline of the population was due to several factors including overfishing and low dissolved oxygen in deeper parts of the Bay. Today, the rockfish population is at its highest in decades. However, scientists are concerned about the high prevalence of disease which has been attributed to poor water quality and limited availability of its preferred prey. [FN 43]

In its entirety, the fisheries industry is a significant part of local economies. The 2008 Fisheries Economics of the U.S. report by the National Oceanic and Atmospheric Administration (NOAA) indicates that commercial seafood industry in Maryland and Virginia contributed \$2 billion in sales, \$1 billion in income, and more than 41,000 jobs to the local economy. [FN 44] In addition there are indirect benefits to the economy in terms of jobs and work created for those who

sell fishing tackle, maintain and repair boats and equipment and provide other related goods and services.

The economic benefits of saltwater recreational fishing are equally as impressive, contributing \$ 1.6 billion in sales which in turn contributed to more than \$ 800 million of additional economic activity and roughly 13,000 jobs. [FN 45] The majority (90 - 98%) of the commercial and recreational saltwater landings in this region come from the Chesapeake Bay. [FN 46]

The economic losses associated with the decline in fisheries resources in the Bay are substantial. Between 1994 and 2004 the value of Virginia's seafood harvest decreased by 30% [FN 47] with Maryland's commercial landings exhibiting a similar decline during that time. [FN 48] Further, between 1993 and 2009 the number of Bay watermen declined from around 14,000 to 1,500. [FN 49] [FN 50]

A 2001 study compared the 1996 water quality of the Bay with what it would have been without the Clean Water Act. Results indicated that benefits of water quality improvements to annual recreational boating, fishing, and swimming ranged from \$357.9 million to \$1.8 billion. [FN 51] Fisheries declines since the 1990s indicates that early progress reducing pollution hasn't been sustained - we must reverse this trend.

These economic impacts are not restricted to the tidal regions of the Bay watershed. According to the Pennsylvania Fish and Boat Commission (PFBC), nearly 2 million people go fishing in Pennsylvania each year, contributing over \$ 1.6 billion to the economy. Among the most popular species for anglers are smallmouth bass and coldwater species, such as brook trout. The PFBC recently passed a proposal to be enacted January 1 that mandates total catch-and-release of smallmouth bass in certain areas of the Susquehanna River because of population declines associated with water quality problems. Degraded stream habitat has restricted brook trout to a mere fraction of its historical distribution.

Virginia, and to a lesser extent Maryland, also support significant freshwater recreational fisheries, with roughly 1 million anglers participating and contributing millions to local economies. [FN 52] By way of example, a fish kill in the Shenandoah River watershed in 2005, likely caused by a variety of factors including poor water quality, resulted in roughly a \$700,000 loss in retail sales and revenues. [FN 53]

If pollution to the Bay is left unabated, we will see more continued decline of the region's fisheries and the resulting economic impacts. In short, we cannot afford not to clean up the Bay. The comparatively modest up-front investments in doing so will pay enormous long term dividends to the entire watershed and its 17 million residents.

[FN 24] Chesapeake Bay Restoration Act of 2000, Nov. 7, 2000, P.L. 106-457, Title II, § 202, 114 Stat. 1967.

[FN 25] NOAA 2008. 2008 Fisheries Economics of the U.S.
http://www.st.nmfs.noaa.gov/st5/publication/econ/2008/MA_ALL_Econ.pdf.

[FN 26] NOAA Fisheries: Office of Science & Technology, Annual Commercial Landing Statistics Website,
http://www.st.nmfs.noaa.gov/st1/commercial/landings/annual_landings.html

[FN 27] Tom Horton. 2003. Turning the Tide: Saving the Chesapeake Bay. Second Edition. Island Press. Washington, D.C. 2003.

- [FN 28] Chesapeake Bay Program. 2010. http://www.chesapeakebay.net/status_bluecrab.aspx?menuitem=19683
- [FN 29] Unpublished data. Dr. James Kirkley, Virginia Institute of Marine Science.
- [FN 30] Chesapeake Bay Program. 2010. http://www.chesapeakebay.net/status_bluecrab.aspx?menuitem=19683
- [FN 31] http://www.chesapeakebay.net/status_dissolvedoxygen.aspx?menuitem=19647
- [FN 32] Diaz, R.J. and R. Rosenberg. 2008. Spreading Dead Zones and Consequences for Marine Ecosystems. Science. Vol. 321.
- [FN 33] Mistiaen, J.A., I.E. Strand, and D. Lipton. 2003. Effects of environmental stress on blue crab (*Callinectes sapidus*) harvest in Chesapeake Bay tributaries. Estuaries Vol. 26:316-322
- [FN 34] <http://www.chesapeakebay.net/crabs.aspx?menuitem=14700>.
- [FN 35] http://www.mdsg.umd.edu/issues/chesapeake/blue_crabs/about/.
- [FN 36] U.S. Army Corps of Engineers. 2008. Oyster Environmental Impact Statement. http://www.nao.usace.army.mil/OysterEIS/FINAL_PEIS/homepage.asp.
- [FN 37] Chesapeake Bay Foundation. 2010. On the Brink: Chesapeake's Native Oysters. What it will take to bring them back.
- [FN 38] R.S. Anderson. 1988. Effects of tributyltin and hypoxia on the progression of *Perkinsus marinus* infections and host defense mechanisms in the oyster, *Crassostrea virginica*. Journal of Fish Disease. Vol. 21:371-379.
- [FN 39] Data from Departments of Health in Virginia and Maryland cited On the Brink: Chesapeake's Native Oysters. What it will take to bring them back.
- [FN 40] Chesapeake Bay Foundation. 2010. On the Brink: Chesapeake's Native Oysters. What it will take to bring them back.
- [FN 41] Southwick Associates. 2005. The Economics of Recreational and Commercial Striped Bass Fishing. www.southwickassociates.com/freereports/default.aspx.
- [FN 42] <http://www.chesapeakebay.net/stripedbass.aspx?menuitem=19389>.
- [FN 43] <http://www.chesapeakebay.net/stripedbassharvest.aspx?menuitem=15316>.
- [FN 44] NOAA 2008. 2008 Fisheries Economics of the U.S (see 24)
- [FN 45] NOAA 2008. 2008 Fisheries Economics of the U.S (see 24)

[FN 46] Lellis-Dibble, K.A., K.E. McGlynn, and T.E. Bigford. 2008. Estuarine Fish and Shellfish Species in U.S. Commercial and Recreational Fisheries: Economic value as an incentive to protect and restore estuarine habitat. NOAA Technical Memorandum. <http://spo.nwr.noaa.gov/tm/TM90.pdf>

[FN 47] Kirkley, et al. 2005. Economic Contributions of Virginia's Commercial Seafood and Recreational Fishing Industries: A User's Manual for Assessing Economic Impacts. Virginia Institute of Marine Science Report No. 2005-9.

[FN 48] NOAA 2008. 2008 Fisheries Economics of the U.S (see 24)

[FN 49] Environment Virginia, Research and Policy Center. 2009. Watermen Blues: Economic, Cultural, and Community Impacts of Poor Water Quality in the Chesapeake Bay.

[FN 50] Tom Horton. 2003 (see 26)

[FN 51] Morgan, et al. 2001. Benefits of water quality policies: the Chesapeake Bay. *Ecological Economics*. Vol. 39: 271- 284.

[FN 52] U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

[FN 53] Papadakis, M. 2006. The Economic Impact of the 2005 Shenandoah Fish Kill: A preliminary economic assessment. James Madison University. www.dep.state.va.us/export/sites/default/info/documents/fishkillReportfinal.pdf.

Response

EPA agrees that the Chesapeake Bay is a national treasure and when the aquatic life use is fully supported there will be huge financial benefits to all who enjoy the resources of the Bay. We firmly believe that this TMDL and its implementation will lead to a fully restored Bay.

Comment ID 0480.1.001.018

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

Nature Based Recreation: Vital Economic Drivers for the Bay Region

Roughly 8 million wildlife watchers spent \$ 636 million, \$960 million and \$1.4 billion in Maryland, Virginia and Pennsylvania, respectively in 2006 on trip-related expenses and equipment. [FN 57] These estimates do not include other economic benefits of these expenditures such as job creation and the multiplier effect on local economies. Improvements to water quality, as well as the implementation of actions, such as afforestation, land preservation, and wetlands restoration, that will lead to improved water quality, will increase and enhance wildlife populations. A study in

the Great Lakes indicates there would be substantial improvement in wildlife watching opportunities and associated economic benefits by improvements to wildlife habitat. [FN 58]

Recreational boating is also a strong economic driver in Maryland, Pennsylvania and Virginia. The total impact on the Maryland economy from recreational boating is estimated to be about \$2.03 billion and 35,025 jobs. [FN 59] Similarly, Pennsylvania residents spend \$1.7 billion on boating annually. The average expenditure per recreational boater is \$274. Of this amount, roughly \$113 a year is spent in direct boating-related expenses and \$161 is spent on trip-related expenses, including: auto fuel, meals, lodging and admission/entrance fees. [FN 60]

A recent study in Hampton, Virginia found that resident and non-resident boaters were responsible for \$55.0 million in economic impact to this city. This impact represents \$32.5 million in new value added, \$22.2 million in incomes and 698 jobs. [FN 61] The majority of expenditures were by out-of-region boating-visitors which represents an inflow of "new" capital into the community. The study also indicated that "water quality, fishing quality and other environmental factors" ranked among the most important, in terms of factors that influence a boater's decision on where to keep his/her boat.

Investment in Clean Water Technologies Stimulates Local Economies.

A study by the University of Virginia found that implementation of the agricultural practices such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts. [FN 62] Every \$1 of state and/or federal funding invested in agricultural best management practices would generate \$1.56 in economic activity in Virginia. Implementing agricultural practices, in Virginia, to the levels necessary to restore the Bay would create nearly 12,000 jobs of approximately one year duration.

A recent analysis of the value of investing in water and sewer infrastructure concluded that these investments typically yield greater returns than most other types of public infrastructure. [FN 63] For example, one dollar of water and sewer infrastructure investment increases private output (Gross Domestic Product) in the long-term by \$6.35. Furthermore, adding 1 job in water and sewer creates 3.68 jobs to support that job.

More specifically, upgrading sewage treatment plants across the watershed has created hundreds of construction jobs, and will create perhaps thousands more as the program begins to grow. Also, upgrading individual septic systems has employed installers, electricians and others involved in the business. These upgrades have pumped millions of dollars into the local economy. A real life example is Mayer Brothers, Inc. in Elkridge, MD. [FN 64] This company staved off significant layoffs this year when the small manufacturing company won a contract from the Maryland Department of Environment to help supply new septic technology throughout Maryland.

On the flip side, cuts to funding programs for clean water infrastructure will lead to job losses. Carter B. McCamy says he will probably have to lay off over 20 workers from his Arbutus, Maryland company if the Maryland legislature cuts the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund. [FN 65] McCamy is CEO of Environmental Quality Resources, LLC, an environmental construction company that specializes in stream restoration, wetland mitigation, reforestation, shoreline stabilization and storm water management. The firm has received significant contracted work through the Trust Fund. He employs 115 full-time workers, and also supports an additional 100 subcontractors who provide trucking materials, concrete, paving and fencing required for stormwater mitigation projects.

Clean Waterways Increase Property Values

An EPA study indicated that clean water can increase the value of single family homes up to 4,000 feet from the water's

edge by up to 25%. [FN 66] A 2000 study concluded that improvements in water quality along Maryland's western shore to levels that meet state bacteria standards could raise property values 6%. [FN 67] High water clarity was shown to increase average housing value by 4 to 5% or thousands of dollars. [FN 68] [FN 69] Homes situated near seven California stream restoration projects had 3 to 13% higher property values than similar homes located on damaged streams. [FN 70] A study by the Brookings Institute projected a 10% increase in property values for homes that would about a proposed \$26 billion Great Lakes restoration project. [FN 71] The City of Philadelphia estimates that installation of green stormwater infrastructure in the city will raise property values 2 to 5 percent generating \$390 million over the next 40 years in increased values for homes near green spaces. [FN 72]

Pollution Reductions Lower Drinking Water and Utility Costs

Reducing pollution inputs from pipes and landbased sources can reduce locality costs to treat drinking water sources to safe standards. New York City's expenditure of \$1 billion over the last decade to protect the watersheds north of the city that supply its drinking water avoided the need to build a \$6 billion treatment plant. [FN 73] An EPA study of drinking water source protection efforts concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs. [FN 74] Similarly, a study by the Brookings Institute suggested that a 1% decrease in sediment loading will lead to a 0.05% reduction in water treatment costs. [FN 75]

Proactive efforts to lessen stormwater flows today reduce future public costs needed to maintain navigation channels, remediate pollution and hazard flooding, and repair infrastructure and property damage caused by excessive runoff. Philadelphia estimates that after 40 years their installation of green infrastructure will create more than \$2 in benefits for every dollar invested, generating \$500 million in economic benefits, \$1.3 billion in social benefits, and \$400 million in environmental benefits. [FN 76]

Conclusion

Efforts to delay implementation of the Bay TMDL will only exacerbate the economic impacts this region has already experienced due to poor water quality. Furthermore, a recent poll in Virginia found that an overwhelming majority believe the state can protect water quality and still have a strong economy. [FN 77] Eighty percent of respondents agreed with the statement, "we can protect the water quality in rivers, creeks and the Chesapeake Bay and have a strong economy with good jobs for Virginians, without having to choose one over the other." Of those polled, 92% believe the Bay is "important for Virginia's economy." Implementation of the TMDL will result in clean water, a healthy Bay and a strong regional economy.

[FN 57] U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

[FN 58] Austin, J.C. et al. 2007. America's North Coast: A Benefit-Cost Analysis of a Program to Protect and Restore the Great Lakes. Brookings Institute, Great Lakes Economic Initiative.

[FN 59] Lipton, D. 2007. Economic Impact of Maryland Boating in 2007. University of Maryland Sea Grant Program.

[FN 60] http://www.fish.state.pa.us/promo/funding/fact_economic_impact.htm.

[FN 61] Virginia Institute of Marine Science. 2009. Assessment of the Economic Impacts of Recreational Boating in the City of Hampton. http://web.vims.edu/adv/econ/MRR2009_2.pdf.

[FN 62] Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in Virginia's Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. www.coopercenter.org/sites/default/files/publications/BMP_paper_final.pdf.

[FN 63] Krop, R.A., C. Hernick, and C. Frantz. 2008. Local Government Investment in Water and Sewer Infrastructure: Adding Value to the National Economy. The U.S. Conference of Mayors, Mayors Water Council.

[FN 64] <http://www.supportgoodmdjobs.com/>.

[FN 65] Lipton, D. 2007 (see 58)

[FN 66] EPA. 1973. Benefit of Water Pollution Control on Property Values. EPA-600/5-73-005. [http://yosemite.epa.gov/ee/epa/ermfile.nsf/vwAN/EE0009.pdf/\\$file/EE0009.pdf](http://yosemite.epa.gov/ee/epa/ermfile.nsf/vwAN/EE0009.pdf/$file/EE0009.pdf).

[FN 67] C. G. Leggett, et al. 2000. Evidence of the effects of water quality on residential land prices. *J. Environ. Econ. Manag.* Vol. 39:121-144.

[FN 68] Jentes Banicki, J. 2006. Hot Commodity: Cleaner Water Increases Lake Erie Property Values. *Twinline*. Vol 28, No. 34. Ohio Sea Grant, Ohio State University. <http://ohioseagrant.osu.edu/documents/twinline/v28i4.pdf>.

[FN 69] Poor, J.P. et al. 2007. Exploring the hedonic value of ambient water quality: A local watershedbased study. *Ecological Economics*, Vol. 60: 797-806.

[FN 70] Streiner, C. et al. 1996. Estimating the Benefits of Urban Stream Restoration Using the Hedonic Price Method a thesis in partial fulfillment of the requirements for the Degree of Master of Science. Dept. of Agriculture and Resource Economics. CSU.

[FN 71] http://stateofthecoast.noaa.gov/coastal_economy/beacheconomics.html.

[FN 72] Philadelphia Water Department. 2009. Green City, Clean Waters: The City of Philadelphia's Program for Combined Sewer Overflow Control-A Long Term Control Plan Update. Summary Report. www.phillywatersheds.org/lcpcu/LTCPU_Summary_LoRes.pdf.

[FN 73] DePalma, A. 2006. New York's Water Supply May Need Filtering. *New York Times*. June 20, 2006. www.nytimes.com/2006/07/20/nyregion/20water.html?_r=1&hp&ex=1153454400&en=2be183debc88eae7&ei=5094&partner=homepage&oref=slogin.

[FN 74] U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki,.

[FN 75] http://stateofthecoast.noaa.gov/coastal_economy/beacheconomics.html.

[FN 76] Poor, J.P. et al. 2007. Exploring the hedonic value of ambient water quality: A local watershedbased study. *Ecological Economics*, Vol. 60: 797-806.

[FN 77] <http://www.cbf.org/Document.Doc?id=562>

Response

EPA agrees.

Comment ID 0489-cp.001.001

Author Name: Comment Anonymous

Organization:

I am a resident of the Shenandoah Valley. I am not a farmer, however I work closely with farmers everyday. I am concerned about the EPA's proposed TMDL for the Chesapeake Bay Watershed and the burden it is placing on our farmers. Farming is a dying industry. There is very little profit and a lot of hard work and long hours involved in farming. More and more farmers are opting to sell their land and get out of the business rather than deal with all the regulations coming out of Washington these days. How are we going to feed America and the World without farmers?! I personally do not want my food coming from China - I am far more confident in American farmers than I am imported food!

Response

EPA reminds the commenter that the TMDL is not a Federal regulation. Please see the response to comment 0139.1.001.006 for information on agricultural funding.

Comment ID 0496.1.001.009

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

Exhibit B shows that the average 54 (James) and 59 (York) percent load reduction needed to achieve the backstop allocation for phosphorus would require treatment of approximately 68 and 74 percent of the urban land area in the James River and York River basins, respectively.[FN3] The estimated total costs of treatment are approximately \$9.8 billion (or approximately \$1.05 billion per year[FN4]) after factoring in the added cost of designing storm water controls that would function effectively on the flat, low-lying terrain and in the soils and high water table that dominate the topography and hydrology in the Hampton Roads area.[FN5] However, as explained below, these estimated costs do not include the added cost of acquiring new easements and construction in existing utility easements.

Exhibit B James River and York River Basins Urban Runoff Allocations and Percent Reductions [Please see the original letter EPA-R03-OW-2010-0736-0496.1]

The magnitude of the financial burden that would be imposed on the residents of the Localities cannot be overstated. As shown in Exhibit C, the estimated \$1.05 billion in annual costs equates to a total average annual storm water fee of \$1,670 per household, or \$720 per person. These fees, in turn, equate to 2.3 percent of median household income (MHI), and 3.0 percent of MHI when the fees imposed on non-residential land owners are passed onto the consumer. Expressed another way, the estimated annual cost of attaining the allocations (without adding the cost of easement acquisition) represents 118 percent of the Localities' 2009 total annual expenditures for public safety (police and fire) and 37 percent of their total annual expenditures for schools. Further, as high as the estimated treatment costs are, they do not tell the whole story.

Exhibit C Estimated Capital Costs, Average Stormwater Bills and Statistics for Hampton Roads Communities [Please see the original letter EPA-R03-OW-2010-0736-0496.1]

[FN3] Although Exhibit B shows that the percent of urban land area that would have to be treated to achieve the load reductions needed to attain the total suspended solids (TSS) allocations are greater than the area that would have to be treated to attain the TP allocations, we have used TP as the benchmark for the cost estimates because it represents a mid-point in the percent reductions for TN, TP, and TSS. Further, the controls that will remove TP also serve to remove TSS. It is possible that the costs to achieve the TSS allocations could be higher than the cost to achieve the TP allocations in the York River basin.

[FN4] In addition to the cost of designing and installing the controls, the estimated annual cost includes operation and maintenance costs and 30-year bond financing at a 5.5 interest rate.

[FN5] The Localities evaluated three control scenarios to arrive at this cost estimate: (1) Scenario 1a - all best management practices (which includes voluntary urban nutrient management plans); (2) Scenario 1b - substituting storage for urban nutrient management plans; and (3) Scenario 1c - more reliance on storage than best management practices. See Exhibit C. Scenario 1c was selected as the control scenario reflecting the level of effort that would be required to achieve the allocations given the topography, hydrology, and soils in the coastal region and the Localities' experience to date with urban nutrient management plans.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0496.1.001.023

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

C. A knee-of-the-curve analysis further indicates that the James River allocations should be based on the Tributary Strategy

We recognize that EPA has a certain amount of discretion to rely on model predictions as the basis for its TMDLs, even

when the predictions are acknowledged to reflect some uncertainty. However, there are limits to the exercise of that discretion; and this is one instance where EPA would be acting arbitrarily because in addition to unresolved flaws in the model, the model predictions are unable to reliably distinguish between model scenarios with immense cost implications as shown in the following knee-of-curve analysis, which was prepared by one of the Localities' consulting engineers, Greeley and Hansen.

Figure 3 Knee-of-the-Curve Analysis for James River Chlorophyll-a WQS [Please see page 17 of the original letter EPA-R03-OW-2010-0736-0496.1]

Figure 3 shows the estimated capital costs of attaining the chlorophyll-a criteria against the percent attainment rate. The capital costs include estimates for basin-wide wastewater treatment plant reductions, agricultural BMPs, and urban runoff controls necessary to meet the allocations identified by EPA for the scenarios identified in Figure 3. The wastewater treatment plant capital costs are a function of design flows and level of treatment (biological nutrient removal, enhanced nutrient removal and limit of technology), Agricultural capital costs are based on BMP unit cost per acre and the BMP assumptions used in the Phase 5.3 Model. The urban runoff capital costs [FN17] are based on the performance associated with the runoff reduction method for an estimated amount of retrofit controls that could be installed in a locality, which represents only a portion of the urban runoff costs. The costs for the remainder of the urban runoff reductions needed to meet the allocations would be achieved with storage and reuse. The estimated capital costs were prepared for the following EPA Scenarios:

- '91-'00 Base Scenario: Point "A" represents the James River TN and TP loading of 36.9 and 3.3 million pounds per year, respectively.
- EPA's Tributary Strategy: Point "B" represents the James River TN and TP portion of the Bay-wide loading, which is 27.5 and 3.3 million pounds per year, respectively.
- EPA's James Chl-a Compliance: Point "C" represents the James River TN and TP loading of 23.5 and 2.35 million pounds per year, respectively. EPA has selected this scenario as the basis for compliance with the James River chlorophyll-a criteria. EPA also refers to this scenario as "James Level of Effort at 1/2 Potomac". In Appendix J to the TMDL Report, EPA states "In the James, the nutrient loads are equivalent to the level of effort halfway between Virginia's portion of the Potomac and the James for the 190/12 Loading Scenario."
- E3 (Everything, Everywhere, by Everybody): Point "D" represents the James River TN and TP loading of 16.1 and 1.5 million pounds per year, respectively. EPA considers this to be the "theoretical maximum levels of managed controls on all pollutant load sources". There are no cost and few physical limitations to implementing controls for point and nonpoint sources in the E3 scenario. This scenario is used with the No-Action scenario to define the "controllable" loads, i.e., the difference between No-Action and E3 loads." See TMDL Report at Appendix J.

The knee-of-the-curve analysis determines where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. There is a steep inflection at Point "B" that represents the knee-of-the-curve. Any reduction beyond Point "B" lacks a viable cost-to-benefit ratio and does not reflect a reasonable level of attainment. EPA has selected Point "C" as the basis for the James River compliance with the chlorophyll-a criteria, which is about halfway between Point "B" and EPA's E3 scenario (point "D"). If one assumes that the model predictions are accurate (about which there is substantial doubt), at Point "B", the James River would be 93 to 94 percent compliant

with chlorophyll-a criteria compared to 99 percent at Point "C". However, the true difference in chlorophyll model output between Points "B" and "c" is only 2 to 3 ug/L (three parts in a billion). Additionally, the sampling and testing accuracies for physical water measurements is 1 to 3 ug/L. In other words, even if the loadings between Points "B" and "C" were achieved, it is unlikely that the difference in James River chlorophyll-a concentrations could be measured. The difference in the estimated cost of achieving the loadings between Points "B" and "C", on the other hand, is over \$10 billion.

[FN17] Urban nutrient management was not included. The capital costs are based on meeting the waste load allocation for the Urban Runoff identified in Appendix Q-1 of the TMDL report.

Response

Please see the response to 0436.1.001.027 for a more detailed response.

Comment ID 0497.1.001.001

Author Name: Hobbs Jack

Organization: Town of Amherst, Virginia

The Town of Amherst owns and operates a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

The Town expects to do its part for the Bay restoration. In fact, our WWTP was improved at a cost of \$4.1 million just before the latest round of nutrient removal requirements were known or required. This has been quite a burden for a community whose population is only 2,251 to bear. We expect that the additional mandated nutrient removal features will cost additional millions of dollars.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0497.1.001.010

Author Name: Hobbs Jack

Organization: Town of Amherst, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements

including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years).

Simply put, the Town's recent WWTP improvements were designed and built to last for 20-30 years. We have absolutely no history of local health problems, significant "notice of violation" or "fish kills" related to our operation. Constantly changing regulations make it extremely difficult for the Town to justify additional capital expenditures unless and until we have some certainty that the regulations will stay fixed for a reasonable period.

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0507.1.001.002

Author Name: Sullivan Sean

Organization: Liberty University and Thomas Road Baptist Church

Imposition of EPA's backstop requirements and the Draft TMDL will impose significant direct compliance costs on Liberty University's and TRBC's current operations and their future expansion. These costs may include retrofitting stormwater controls onto existing developments and significant nutrient reduction costs for new developments. In addition, Liberty and TRBC will incur significant indirect costs if the Draft TMDL and the backstop requirements become effective. For example, the City of Lynchburg has indicated that it expects to incur greater than \$60 million in compliance costs as a result of the backstop requirements. As the single largest landowners in the region, Liberty University and TRBC will bear the brunt of increased taxes, utility fees and market effects associated with EPA's proposed requirements.

Response

It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0510.1.001.015

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

We are concerned about the significant economic impacts the Draft TMDL will have on agricultural producers in the Bay. Absent an assessment of the costs that will have to be borne by agricultural producers as the Draft TMDL is implemented, EPA should not proceed with issuing the TMDL. The Draft TMDL relied on E3 scenarios (Everything, by Everyone, Everywhere) to achieve the pollutant reductions called for in its backstop allocations even though EPA admits that the E3 scenario is not realistic and is not constrained by economic or technical feasibility. As a result, EPA has proposed pollutant reductions that are not realistic. In fact, EPA had previously determined that the water quality standards for the Chesapeake Bay were not attainable and a use attainability analysis (UAA) was needed. This action would have followed the recommendation of the National Research Council of the National Academy of Sciences in its 2001 report: "Assessing the TMDL Approach to Water Quality Management" (NAS 2001). In that report, the NAS

recommended that states or EPA first determine whether water quality standards are attainable, before developing a TMDL. NAS 2001, at 94. Unfortunately, EPA abandoned its UAA for the Chesapeake Bay. By issuing a TMDL without going through this analysis, EPA will be issuing a TMDL that cannot meet water quality standards, and therefore cannot meet the requirements of the statute.

To date, for the Chesapeake Bay, EPA has only considered changes to water quality standards when modeling has showed the standards are not achievable even if EPA could turn the clock back to the 1600s and impose complete reforestation on the Chesapeake Bay watershed. However, EPA should allow watershed jurisdictions to look at economic and social feasibility as well. For example, the Draft TMDL would result in significant adverse impacts on agriculture production, with significant impacts on the availability of affordable food. For example, it is important that a watershed jurisdiction be able to decide that because achieving water quality standards for all three pollutants in all segments and at all times would cause substantial and widespread economic and social impacts, that instead water quality standards could be met in most areas most of the time with far less impact. This analysis is critical to the development of the Chesapeake Bay TMDL.

Response

Please see the response to comment 0481.1.001.010 which explains that a UAA is premature at this time.

A cost benefit analysis is beyond the scope of the TMDL, as discussed in the response to comment 0139.1.001.017.

For the rational behind WIP backstops, please see the response to comment 0067.1.001.009 and Section 8 of the TMDL report.

Comment ID 0512.1.001.002

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #1 - As part of the County's Strategy, it was estimated that there are \$225 million of needed WWTP improvements to respond to the Bay requirements and wet weather compliance, and many of these improvements are already underway. This has resulted in a significant increase in the sewer treatment costs and rates in the County. If the backstop TMDL is implemented, it will result in a dramatic increase in this cost. If it is implemented while some of the improvements to the facilities are under construction and/or design, it would significantly increase the cost to the facilities and the rate-payers. Lycoming County has been working very hard for the past several years to meet the requirements of the Chesapeake Bay agreement and the possibility of EPA imposing a backstop TMDL is of great concern to the County, the wastewater treatment plants, residents, agriculture community, and all of the stakeholders that have assisted with the development of our strategy.

The financial impact to the citizens of the County is of great concern because Lycoming County qualifies as an area that is "economically distressed" as defined by Section 301 of the Public Works and Economic Development Act of 1965. Lycoming's per capita income is \$17,224 and is 79.8% of the national average [FN1] of \$21, 587

[FN 1] The source of this information is ESRI and U.S. Census Bureau

Response

Please see the response to comment 0501.1.001.005 for a discussion of the cost of public sector point source upgrades and the response to comment 0067.1.001.009 and Section 8 of the TMDL for discussion of EPA's WIP backstops.

With regard to Environmental Justice, please see the response to comment 467.1.001.026.

Comment ID 0512.1.001.004

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #3 - The EPA must consider that the backstop TMDL would go beyond what is necessary, appropriate and feasible infrastructure for our communities, and impose infrastructure requirements that are excessively costly with low incremental return (especially where receiving streams are not impaired) and many unintended consequences.

Comment #4 - The County believes EPA's TMDL would require Pennsylvania's wastewater treatment plants to be further upgraded to Enhanced Nutrient Removal, a severe restriction of Nutrient discharges. ENR should become a proven technology under more favorable conditions before it is seriously considered in Pennsylvania. Implementing ENR would represent a crushing economic burden to most residents served by public wastewater systems in our County. If this is ultimately required, significant federal dollars must accompany the federal mandate.

Comment #5 - If the draft backstop TMDL is implemented, it would have a serious impact on Lycoming County's economic development opportunities and efforts to create jobs within the County. The increased sewer rates and the possibility of not being able to connect to the sewer system in a timely manner are directly linked to the implementation of EPA's draft backstop TMDL. The County and its economic development partners have very serious concerns. The extremely high sewer rates that will be needed to address the improvements required by the backstop TMDL will be a deterrent to potential businesses and companies looking to locate in our County.

The County has partnered with the EPA to develop a brownfields strategy in the County. At the center of the strategy is the redevelopment of brownfield sites in our planned and designated growth areas. We are now at a critical stage in this strategy: implementation. The increased sewer rates (or a delay in connection to the sewer system that would result from the required infrastructure improvements to meet the backstop TMDL) will act as a deterrent to companies interested in redeveloping these brownfield sites. This would result in our County losing new opportunities to attract companies and create new jobs.

Comment #6 - With a significant increase in sewer rates, companies and residents located within the areas serviced by public sewer systems, the county's designated growth areas, may move into the rural parts of our County or even out of the County. The County's rural areas do not have public sewer systems. This shift of population and business from the

growth areas to the rural parts of the County would violate the EPA's Smart Growth principles, Pennsylvania's Keystone Principles, and the County's Comprehensive Plan.

Response

Please see the response to comment 0501.1.001.005 for a discussion of the cost of public sector point source upgrades and the response to comment 0067.1.001.009 and Section 8 of the TMDL report for discussion of EPA's WIP backstops.

Comment ID 0512.1.001.011

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #11 -The County recommends that funding considerations for awarding financial support for Bay recovery efforts should take into consideration that non-tidal states, like Pennsylvania, do not receive direct economic benefit from Bay restoration.

Response

Please see the response to comment 267.1.001.006.

Comment ID 0513.1.001.006

Author Name: Hoot Lynne

Organization: Maryland Grain Producers Association (MGPA)

MGPAs opposition to the Bay TMDL process should not be construed as opposition to clean water -to the contrary, MGPA supports most of Maryland's agricultural WIP activities as a way to improve water quality. We believe that given adequate financial and technical resources, Maryland's WIP is doable. We are concerned however that Maryland will be unable to achieve its WIP goals because there will be inadequate funding to achieve this extremely expensive program. Will EPA provide the funding for agricultural BMPs? EPA has completely ignored the economic status of the state, local jurisdictions and businesses in Maryland. Of particular concern to Maryland farmers is that we will be placed at an economic disadvantage to our competition from across the rest of the country and the world. Maryland's primary grain crops, number 2 dent corn, wheat, barley, and soybeans receive the same price regardless of their cost of production due to local requirement and regulations.

Response

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in

alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0514.1.001.001

Author Name: Schwartz Jerry

Organization: American Forest & Paper Association (AF&PA) and National Alliance of Forest Owners (NAFO)

The American Forest & Paper Association (AF&PA) and the National Alliance of Forest Owners (NAFO) appreciate the opportunity to provide comments on EPA's Draft Chesapeake Bay Total Maximum Daily Load (TMDL) for nutrients and sediment.

AF&PA is the national trade association of the forest products industry, representing pulp, paper, packaging and wood products manufacturers, and forest land owners. Our companies make products essential for everyday life from renewable and recyclable resources that sustain the environment. The forest products industry employs approximately 1 million people and is among the top 10 manufacturing sector employers in 48 states.

NAFO is an organization of private forest owners committed to advancing federal policies that promote the economic and environmental values of privately-owned forests at the national level. NAFO membership encompasses more than 75 million acres of private forestland in 47 states. Working forests in the U.S. support 2.5 million jobs. View NAFO's interactive map to see the economic impact of America's working forests.

AF&PA and NAFO members own forest land in the Chesapeake Bay watershed. Those members could face unwarranted requirements to change their sustainable forest management practices as a result of incorrect assumptions in the TMDL.

Response

Please see the response to 0036-cp.001.001 outlining the federal effort towards forestry in the Bay watershed. For concerns regarding the model please see response to comment 0379.1.001.006.

Comment ID 0514.1.001.010

Author Name: Schwartz Jerry

Organization: American Forest & Paper Association (AF&PA) and National Alliance of Forest Owners (NAFO)

Sustainable forest management provides incentives for landowners to retain forest land in forest cover.

Today the greatest threat to water quality impairment in the Chesapeake Bay Watershed results from deforestation that results from the conversion of forests to non-forest uses that produce a higher economic value. The families, businesses and individuals that own nearly 60% of our nation's forests depend on the returns they get from the products their forests produce to make additional investments in sound, long-term forest management. When existing markets for their products are strong, or when new markets like energy emerge, they provide forest owners the means to keep their land forested by keeping their forests economically competitive with other uses. However, when regulatory costs are imposed, this reduces a landowner's ability to maintain the land in forest cover and at some point will tip the balance in favor of non-forest uses.

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Response

A TMDL is not a federal regulation. For information on this topic please see the response to comment 0036-cp.001.001. The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0515.1.001.010

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Present and projected future costs must be addressed alike. In the case of our Facilities, the Phase III Improvements upgrades, net of grant funding, have cost an average \$2,229 per connected property (or, equivalent dwelling unit ["EDU"]) in the City of Binghamton and \$5,576 per connected property/EDU in the Village of Johnson City as shown by the attached chart following this letter [Comment Letter contains additional information in the form of an attachment. See original comment letter 0515.1]. Because of bonding, however, over the course of 30 years (running through 2040), even after crediting projected interest rate subsidies from the NYS-EFC, property owners in the Owner municipalities will be paying-out at least 2.25 times these principal amounts for the better part of two generations (i.e., over time \$5,015 will be paid per EDU in Binghamton and \$12,547 will be paid per EDU in Johnson City) for the capital costs of the upgrades alone, not to mention increases in the property owner's annual sewer bills, which presently reflect a gross 87% increase in our Facilities' annual operating and maintenance costs from \$4,947,856 in 2005 to \$9,256,034 under the 2011 budgets approved by the Facilities' Owners (but not including future increases in operating and maintenance costs, which may double by 2017 [from 2010] and double again by 2025 [from 2017, i.e., quadruple from 2010] if the TMDL is adopted in its presently-proposed form, especially given the apparent need to add, operate and maintain process upgrades for enhanced phosphorus removal). Thus, if anything, it appears there will be a net reduction in real property values (and taxable value "tax base" for property tax purposes [upon which local school district and local government funding are based]) which will result from the "overburden" these long-term costs place on the tax-paying property owners and ratepayers we serve. It is submitted that, if the TMDL contained complete and proper socioeconomic analysis, it would be clearly shown that any small potential improvement in local real property values from further improvement of New York's already unimpaired WQ in its portion of the Bay watershed will be offset many times over by the fiscal burden on real property values resulting from the heavy debt load and annual costs discussed above, thereby resulting in a net decrease in real property values within the New York portion of the Bay watershed owing to the TMDL. (The comment period's shortness precludes us from obtaining and presenting a more in-depth analysis).

Response

Please see the response to comment 0080-cp.001.002 for a discussion of equity and New York and the response to comment 267.1.001.006 for a discussion of New York's responsibility to downstream states in regards to this TMDL.

EPA did not consider socioeconomic impacts for reasons discussed in the response to comment 0139.1.001.017 and the response to comment 0501.1.001.005 for discussion of cost to public sector point sources.

See the response to comment 0060.1.001.005 for discussion of the comment period.

Comment ID 0518.1.001.001

Author Name: DuVal Barry

Organization: Virginia Chamber of Commerce (VCC)

The Virginia Chamber of Commerce supports efforts to ensure a clean and healthy Chesapeake Bay, including reasonable measures to recover and reclaim, as well as to conserve and maintain valuable natural resources. However, VCC has major concerns regarding the economic impact of the proposed TMDL on the Commonwealth of Virginia.

As the voice of business in Virginia, VCC is concerned over how the proposed TMDL will strain an already stressed economy. This mandate will have broad reaching, adverse effects on Virginia businesses and on state and local government. Regrettably, the EPA has chosen not to conduct cost analysis for the Bay TMDL, and we believe this mandate will not only prevent growth, but extend the so-called jobless recovery period.

For that reason, VCC strongly urges the EPA to be responsive to the many concerns of the broad based business community, localities and other affected source sectors on the economic impact and cost associated with the implementation of the TMDL. Surely the EPA can slow down enough to find better balance between the economic impact of the TMDL and the "immediate" clean up needs of the Bay.

Response

Analysis of cost is beyond the scope of the TMDL, as discussed in the response to comment 0139.1.001.017. EPA has a court ordered deadline of December 31, 2010 to establish a TMDL that meets water quality standards.

Comment ID 0522.1.001.003

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

2. COR ratepayers have the highest wastewater rates in the Commonwealth of Virginia for major metropolitan areas (Draper Aden 2010) and the stormwater utility is one of only a handful in the Commonwealth and the only one in the Richmond metropolitan area.

3. The projected COR capital improvement plan program for the Chesapeake TMDL is \$30 million for wastewater and \$500 - 800 million for stormwater.

4. The recurring annual operating costs for the improvement for the Chesapeake Bay TMDL are estimated in the \$100s of millions for wastewater and stormwater.
5. The rate impact of the Chesapeake Bay TMDL improvements has been calculated to increase the wastewater bill to the ratepayers by 4% per year for 20 years and to increase the stormwater bill from \$45 per equivalent residential unit (ERU) to \$300 - 700 per ERU.
6. Current 10 year COR capital improvements plan program for wastewater and stormwater collection and treatment total in the \$10s of millions of dollars for each fiscal year funded by the ratepayers.
7. COR is proactively implementing the stormwater management program through the voluntary establishment of the stormwater utility in difficult economic circumstances.

Response

Please see the response to comment 501.1.001.005 for discussion of public sector point sources.

Comment ID 0523.1.001.002

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

The associated capital cost of these improvements is \$113,276,750 with annual O&M costs at completion of an additional \$2 million (including chemicals and energy) to the current budget. The rate impact of this debt service and cost is an increase of 5% per year for 20 years.

Response

Please see the response to comment 501.1.001.005 for discussion of public sector point sources.

Comment ID 0523.1.001.010

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

2. COR ratepayers have the highest wastewater rates in the Commonwealth of Virginia for major metropolitan areas (Draper Aden 2010) and the stormwater utility is one of only a handful in the Commonwealth and the only one in the Richmond metropolitan area
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4. The recurring annual operating costs for the improvement for the Chesapeake Bay TMDL are estimated in the \$100s of millions for wastewater and stormwater.

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6. Current 10 year COR capital improvements plan program for wastewater and stormwater collection and treatment total in the \$10s of millions of dollars for each fiscal year funded by the ratepayers.

7. COR is proactively implementing the stormwater management program through the voluntary establishment of the stormwater utility in difficult economic circumstances.

Response

Please see the response to comment 501.1.001.005 for discussion of public sector point sources.

Comment ID 0527.1.001.002

Author Name: Romanello Anthony

Organization: County of Stafford, Virginia

Our most significant concerns with EPA's Draft TMDL and Virginia's WIP relate to the lack of transparency in this regulatory process, particularly regarding lack of disclosure and analysis of costs related to urban stormwater. We understand that in other EPA documents urban stormwater costs for the Bay TMDL have been estimated at an annual cost of \$7.9 billion. Similarly, we understand that the Center for Watershed Protection has reported costs on the order of \$88,000 per acre for urban retrofits. To translate these types of costs estimates to the household level, last month a national engineering firm reported to the Virginia Municipal Stormwater Association ("VAMSA") that EPA's Draft TMDL's costs may be on the order of \$700 to \$1,800 per household per year, for urban stormwater management alone, during the 15-year implementation period. Obviously, costs in that range are extremely high if not completely unaffordable. It is also unclear at this time whether any additional Federal or State funding will be provided to localities to assist with implementation of TMDL related programs.

Response

EPA reminds the commenter that the TMDL is not a Federal regulation. The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all seven jurisdictions. More

than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Please see the response to comment 501.1.001.005 for discussion of public sector point sources.

Comment ID 0531.1.001.003

Author Name: Abraham Phillip

Organization: Virginia Association for Commercial Real Estate (VACRE)

We agree with Secretary Domenech that EPA needs to take into account that it is forcing states to implement the TMDL "during the worst economy in at least a generation."

Response

EPA is under legal obligation to establish a TMDL that meets water quality standards by December 31, 2010.

Comment ID 0534.1.001.003

Author Name: Golazeski Daria

Organization: Broome-Tioga Stormwater Coalition (BTSC)

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier as farms close faced with the cost of compliance and economic development is hindered by an additional cost of doing business.

Response

EPA directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0540-cp.001.002

Author Name: Goodsell Martha

Organization: Fallow Hollow Deer Farm, LLC

New York farmers have worked hard and should not be unfairly punished. Farmers in other states, as well as other industries in all states, must do their share to limit and control run off. If not all are held to equal standards, then sacrificing a major farming region (the Southern tier of New York) - which contributes significantly to the food-shed of the Northeast - for the benefit of cleaning up the bay, will result in unintended consequences and additional economic hardship for an area already in distress.

Response

Please see the response to 0080-cp.001.002 which discusses equity and the state of New York.

Comment ID 0542.1.001.002

Author Name: Hooker Patrick

Organization: New York State Department of Agriculture and Markets

We are deeply concerned about the economic consequences and implications to New York agriculture industry's ability to remain competitive with the draft TMDL's overly aggressive pollution targets. While we recognize that other states have varying magnitudes of delivered N and P to reduce, these other states also have diverse land use types allowing them to draw reductions from a wide range of sources. New York's is a small portion of the watershed's land base, largely forest (76%) with some agriculture (21 %) and urban development (3%). Under these land use dynamics load reductions must come from agriculture in New York. It is understood that all Bay States have a shared responsibility to achieve water quality standards. However, other states with higher loading thresholds, across all land uses, places an undue burden on New York farm families. As discussed in some of our previous memos this condition is best demonstrated by the fact that even the total elimination of the dairy industry in our portion of the Chesapeake Bay Watershed would still not allow New York to meet the proposed TMDL. When such a draconian measure is still inadequate, we are facing the worst kind of policy suggestion. There must be parity in the delivered load allocation amongst states in the Chesapeake Bay TMDL.

Response

Please see the response to comment 0080-co.001.002 for discussion of equity and New York. Also, please see the response to comment 267.1.001.006 for explanation of how loadings from New York contribute to the impairment in the Bay.

Comment ID 0546.1.001.005

Author Name: Cameron Beverly

Organization: City of Fredericksburg, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years).

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0552.1.001.002

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

Our most significant concerns with EPA's Draft TMDL and Virginia's WIP relate to the lack of transparency in this regulatory process, particularly regarding lack of disclosure and analysis of costs related to urban stormwater. We understand that in other EPA documents urban stormwater costs for the Bay TMDL have been estimated at an annual cost of \$7.9 billion. Similarly, we understand that the Center for Watershed Protection has reported costs on the order of \$88,000 per acre for urban retrofits. To translate these types of costs estimates to the household level, last month a national engineering firm reported to the Virginia Municipal Stormwater Association ("VAMSA") that EPA's Draft TMDL's costs may be on the order of \$700 to \$1,800 per household per year, for urban stormwater management alone, during the IS-year implementation period. Obviously, costs in that range are extremely high if not completely unaffordable.

Response

Please see the response to comment 0527.1.001.002.

Comment ID 0552.1.001.007

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

2. COR ratepayers have the highest wastewater rates in the Commonwealth of Virginia for major metropolitan areas (Draper Aden 2010) and the stormwater utility is one of only a handful in the Commonwealth and the only one in the Richmond metropolitan area.
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5. The rate impact of the Chesapeake Bay TMDL improvements has been calculated to increase the wastewater bill to the ratepayers by 4% per year for 20 years and to increase the stormwater bill from \$45 per equivalent residential unit (ERU) to \$300 - 700 per ERU.
6. Current 10 year COR capital improvements plan program for wastewater and stormwater collection and treatment total in the \$10s of millions of dollars for each fiscal year funded by the ratepayers.
7. COR is proactively implementing the stormwater management program through the voluntary establishment of the stormwater utility in difficult economic circumstances.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0553.1.001.003

Author Name: Uzupis John

Organization: Synagro Technologies, Inc.

- Requirements of S. 1816 and H.R. 3852 place farmers in the Chesapeake Bay Watershed at an economic disadvantage to farmers in other states. For example, in Virginia alone, fencing livestock away from streams that feed into the Chesapeake Bay could cost in excess of \$800 million.
- Farming is already an economically challenging business. Successful and implementable environmental measures must be practical, effective and not economically destructive to agriculture. Water quality programs cannot be developed in a vacuum without considering economic impacts to the economy.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA cannot speak to the impacts or requirements of proposed legislation (S. 1816 or H.R. 3852)

Comment ID 0560-cp.001.002

Author Name: Trissel Cory

Organization: Trissel Farms Inc.

My concern with the EPA is that it not mandate regulations neither I nor my farming neighbors will be able to absorb. We had a brutal year of financial losses in 2009 and dairy profits at best require years of saving and planning for facility upgrades.

Response

EPA reminds the commenter that the TMDL is not a Federal regulation. Because there are milestones built into the TMDL, years of planning and funding outlined in the response to comment 0139.1.001.006 are available for controls.

Comment ID 0561-cp.001.002

Author Name: Flathers George

Organization: Meadowdean Farm

I would like to register my strong opposition to the referenced EPA initiatives to establish federally-mandated TMDL backstop limits, because ... the economic impacts of the mandates are a death sentence to a weakened agri-business sector in the region;

Response

A TMDL is not a federal mandate. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0561-cp.001.004

Author Name: Flathers George

Organization: Meadowdean Farm

I would like to register my strong opposition to the referenced EPA initiatives to establish federally-mandated TMDL backstop limits, because ... the EPA's data and methodology for the estimating the cost of compliance is woefully inadequate and betrays a typical and fundamental Washington ignorance of the real world outside the beltway (the real world that produces the food that those same bureaucrats consume without a thought).

Response

Please refer to the response to comment 0139.1.001.017. For a discussion of WIP backstops, please see the response to comment

0067.1.001.009 and Section 8 of the TMDL report.

Comment ID 0568.1.001.007

Author Name: Eisel James

Organization: Delaware County, New York

At the same October 27th meeting, EPA staff pointed out that 1500 watermen were currently out of work due to pollution levels of the Chesapeake Bay. While Delaware County is sympathetic to the plight of individuals that rely on clean water for their livelihoods (as we do), we must insist on a better solution than trading the existence of our farmers for those of the Chesapeake Bay watermen. The solution lies in a more equitable distribution of pollution allocations, to hold accountable tidal states that have not been as proactive in their water quality protection efforts as we have in Delaware County.

Response

Please see the response to Comment 0080-cp.001.002 which discusses equity in regards to New York. EPA also reminds the commenter that the basic premise of this TMDL is that upstream loadings of pollutants contribute to the downstream non-attainment of water quality standards. Thus this and other TMDLs recognize that the downstream waters (the Bay and tidal tributaries) are impaired, that loadings of nitrogen, phosphorous and sediment cause and contribute to those impairments. New York and other bay jurisdictions contribute loadings of these pollutants and therefore are subject to the Bay TMDL.

Comment ID 0598-cp.001.002

Author Name: Jones George

Organization: Foxglade Farm

2. Va farmers and agriculture have been willing partners in accomplishing a significant reduction in the past 10 yrs. Considering the economic impact that would be placed on the ag producers in many instances it may be detrimental possibly resulting in the loss of farms.

Response

EPA directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0602-cp.001.002

Author Name: Comment Anonymous

Organization: Hill Top View Farm

Farmers operate on thin margins at best, and cannot withstand the financial burden of costly regulatory mandates. The proposed Chesapeake Bay TMDL threatens the livelihood of farmers with burdensome new regulations.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

EPA also reminds the commenter that the TMDL is not a Federal regulation.

Comment ID 0605.2.001.004

Author Name: Payne L.

Organization: City of Lynchburg, Virginia

In order to meet these allocations, the City of Lynchburg would need to invest in an upgrade of our WWTP estimated at \$70 million. Lynchburg already has among the highest sewer rates in the state in relation to the median household income as a result of our ongoing CSO program which has been extremely successful in improving water quality in the James River by significantly reducing the volume of raw sewage being discharged into the river and its tributaries. However, we estimate that in order to complete the CSO program, an investment of over \$300 million still remains. As a result, the addition of another major capital expense at this time is simply unaffordable and would slow the progress of the CSO program to the detriment of water quality.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0607.1.001.007

Author Name: Bauhan Hobey

Organization: Virginia Poultry Federation (VPF)

Cost and Economic and Social Impacts

Tens of billions of dollars have already been spent on efforts to improve the Chesapeake Bay. The poultry industry has been a willing and proactive steward of the environment and allocated millions of dollars toward this objective, many directly related to the Bay restoration. The industry will continue to be a responsible environmental steward, guided by scientific research, technological advancements, and sensible consideration of economics.

Unfortunately, in addition to being beyond the scope of the law, the draft TMDL and associated mandates will exact an enormous economic impact at a time when our economy is already suffering. Poultry processors and farmers operate on thin margins, and cannot bear the burden of substantial new regulatory costs. Such costs could make the Bay region uncompetitive for poultry production. Causing the poultry industry to shift production to other areas of the nation or overseas would be bad for the Bay. The industry currently provides substantial farm income that helps maintain well-managed farmland, which is widely recognized as a one of the best land-uses for maintaining water quality. Jeopardizing the economic viability of the poultry industry will only lead to more impervious surfaces that will be counterproductive to Bay improvement goals.

EPA has not conducted an adequate assessment of its proposals' economic impacts. The agency should not proceed with its proposals without full analysis and consideration of the economic impacts.

Response

EPA will not be conducting an assessment of the TMDL's economic impacts for reasons discussed in the response to comment 0139.1.001.017.

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0608.1.001.001

Author Name: Pallansch Karen

Organization: Virginia Sanitation Authority, City of Alexandria

The City of Alexandria, Virginia Sanitation Authority owns and operates a municipal wastewater treatment plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We expect to do our part for the Bay restoration. In fact, our WWTP is in the process of being upgraded with nutrient removal technologies including chemical feed system improvements, centrate pretreatment, additional biological nitrogen removal tank volume, a nutrient load management facility and improvements to solids handling facilities to manage increased solids production. The program costs for these upgrades are nearly \$180 million, including land purchases, design and construction. In addition, these new upgrades have an impact on our operation and maintenance costs, with a projected increase of over 6% annually as a result of an increase in chemical and energy use. Finally, to achieve an upgrade project of this magnitude required to meet current regulations, the Authority's Board

has already authorized a rate revenue increase with additional increases annually for the next three years.

Response

Thank you for the information provided on how the City of Alexandria is working to improve local water quality with the upgrade of the wastewater treatment plant.

Comment ID 0609.1.001.003

Author Name: Aubertine Darrel

Organization: Senate of the State of New York

It should also be noted that agriculture is New York State's leading industry and is an integral part of the economy of the watershed region. Consequently, implementing a program that will severely curtail agriculture in the watershed will have significant negative effects for New York State's economy.

Negative Impacts on New York Agriculture

According to the Upper Susquehanna Coalition - an organization comprised of 19 Soil and Water Conservation Districts, 16 in New York and 3 in Pennsylvania - the TMDL will have the following impacts on agriculture in the watershed:

- Farms of any size will be regulated as Concentrated Animal Feeding Operations (CAFOs)
- Farms of any size will need a Comprehensive Nutrient Management Plan (CNMP)
- Farms of any size will be required to have manure storage
- Farms of any size will be prohibited from spreading manure during the winter
- All manure applied to crop fields will need to be injected
- All farms will be required to have ammonia emission controls on their facilities
- 800 additional farms will be regulated
- Large farms will be required to use Precision Feed Management

All of these impacts will result in increased costs to farmers and in all likelihood will ultimately mean the demise of many, if not all, of the farms in the watershed. Moreover, according to the New York State Commissioner of Agriculture and Markets not even the total elimination of the dairy industry in New York's portion of the watershed will enable New York to meet the proposed TMDL.

Increased Costs for Municipalities and Taxpayers

In spite of the fact that the load allocations envisioned in this TMDL are unattainable, municipalities and farmers will still be expected to spend billions of dollars for upgrades to equipment and infrastructure. According to Department of Environmental Conservation (DEC) Assistant Commissioner James Tierney, "the DEC's estimate that the plan could cost New Yorkers between \$3 billion and \$6 billion in upgrades to farms, sewer systems and wastewater treatment

plants is very conservative."

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024. For discussion of public sector point sources, please see the response to comment 501.1.001.005.

Comment ID 0618-cp.001.002

Author Name: Reese Jodi

Organization: CET Engineering Services

This approach nets a fraction of the needed reductions from Pennsylvania and carries a huge financial burden to the rate-paying public. More Draconian is that many of the industrial point sources are listed as having nutrient limits that appear to be arbitrary and are well below the limit of technology. This approach exacerbates the unstable economic conditions that exist today. This approach will likely lead to multiple legal actions that will result in significant delays to the restoration of the Bay.

Response

Please see the response to comment 0067.1.001.017.

Comment ID 0622-cp.001.002

Author Name: Bruce D.

Organization: Rainbow Hill Farm

Farmers are among the most loyal conservationists and lovers of clean and pristine water in the country, yet we are being forced to comply with regulations that could put us out of business. We are already reeling from the impact of mandate for the use of more of the nation's corn crop being made into ethanol, which drives up feed costs and uses huge quantities of fresh water to make.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024. EPA reminds the commenter that the TMDL is not a Federal regulation.

Comment ID 0631.001.001

Author Name: Bowen James

Organization: Beauregard Farms

I believe it my duty to challenge the EPA on these TMDL plans. I believe mandatory regulations and enforceable reg. will only make working with nonsource pollutants harder and more costly. I think it will only increase the cost of responsible and efficient farming, and generally cause havoc to the sector most needed to achieve water quality.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. Please note that a TMDL is not a federal regulation or mandate.

Comment ID 0632.001.001

Author Name: Seymour M.

Organization:

This letter is in response to the draft Chesapeake Bay total maximum daily load (TMDL) issued by your agency. Being a dairy farmer in New York State your rulings will directly impact us. We are beseeching you to please listen to and take into account our concerns stated throughout the rest of this letter.

The dairy industry has endured many financial blows the last several years testing us in all areas of our lives; we recently attended an EPA DEC meeting Elmira New York on the TMDL. We came away certain that our biggest test will be coming in the very near future. Your agency is regulating smaller Farms right out of business. We heard that there may be cost sharing; although no one would talk about the cost to us or the State of New York.

As the financial crisis hits more sectors in our community. We often hear we need to put more money into more populated areas. This seems to be the case with the Chesapeake Bay TMDL. You will sacrifice the less populated areas for the greater good of the masses, even though there will be no financial or environmental impact on their lives. No one is forcing them to meet the standards that you will be expecting us to follow.

Response

Please see the response to 0722.001.001.

Comment ID 0633-cp.001.004

Author Name: Bertoni John

Organization: Wastewater Treatment Plant, Village of Endicott, New York

The Endicott Wastewater Plant completed an 8 million dollar nitrification upgrade ten years ago to comply with a consent order due in part to the Chesapeake Bay Commission. Further upgrades are estimated to be 6 to 8 million dollars. Due to these anticipated unfunded mandates, the cost to our users will be unacceptable.

Response

Please see the response to comment 501.1.001.005.

Comment ID 0634.001.004

Author Name: Bassler Richard

Organization: Town of Fenton, New York

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier as farms close faced with the cost of compliance and economic development is hindered by an additional cost of doing business.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0648-cp.001.002

Author Name: Brath P.

Organization:

As a resident of Pennsylvania, a municipal consultant, a boater and fisherman and a concerned citizen, I have followed and been involved in the Chesapeake Bay Tributary Strategy implementation and now the DEP's Watershed Implementation Plan. The Environmental Protection Agency's draft Backstop Chesapeake Bay TMDL is a disappointing action that must be reconsidered. I have included comments to the EPA's plan below.

Comment #3:

We Pennsylvanian's do not deny that some eutrophication (the growth of algae that depletes the dissolved oxygen

content of the water) and the associated dead zones are present in parts of our bays and rivers. Pennsylvania understands that we can and should do better to ensure that clean water is available for generations to come. We understand that the people of this state and our surrounding states enjoy our collective waters both up and downstream of our own. What the federal government and the EPA must acknowledge, is the two hundred billion dollar elephant in the room that represents the incredible costs of these programs. If this process is not pursued in a scientific yet cost-effective manner, it will be stifling to our economy, our municipalities, our businesses, and our personal lives. The science of the process must be clear and correct, and credit must be swift with appropriate adjustments made when progress is achieved. It is evident that the EPA cannot and does not care about the costs. It is also evident that the EPA is unable to quickly adjust the science of the process and provide credit swiftly with appropriate adjustments made when progress is achieved. The EPA should and must provide a better method of providing credit for improvements as they are made.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

It is EPA's desire to credit all water quality improvements as they occur. EPA has requested that nitrogen, phosphorus and sediment controls be reported annually. This data will be compared with water quality monitoring throughout the watershed so that loads can be tracked and verified. Point source controls can more easily be tracked because regulation requires that NPDES permits are consistent with TMDL waste load allocations. The only way that EPA can credit a BMP in the watershed is if it has been reported and BMPs installed voluntarily need to be reported in order to be credited.

Comment ID 0654.001.005

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

The economic impact of the Draft TMDL should also be considered. Good public policy demands that the costs and benefits of various policy options be evaluated. The financial costs of various options should be considered when choosing an option. The Draft TMDL and EPA's improper demands upon Bay states do not address or seem to consider the substantial adverse economic impacts of the policy choices made by EPA in the Draft TMDL.

Response

EPA will not be conducting a cost-benefit analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0656.001.010

Author Name: Dietrich Fredric

Organization: Town of Danby and Tompkins County, New York

The proposed allocations also put a stranglehold on future economic growth because permits would be withheld for failure to comply with the TMDLs. Given that the allocations are impractical to achieve, towns like Danby would be unable to experience agricultural or non-agricultural business growth that might result in increased loading from point or nonpoint sources. [FN7]

[FN7] See Draft TMDL at app. S-2 (thus, since New York would not even meet its initial allocations, any additional loading would not even qualify as "new or increased loading" defined in the draft TMDL as occurring "after the point in time the source begins meeting its WLA or LA." (emphasis in original)).

Response

Please see the response to 0067.1.001.009

Comment ID 0667.001.003

Author Name: Comment Anonymous

Organization:

Current funding estimates are just based upon the costs of installing the practices. They do not account for costs like, loss of productive land, replacing practices when weather damages occur, and fluctuations in markets, etc.

Response

Please refer to response to comment 0139.1.001.017. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0669.001.002

Author Name: Burkholder J.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Second: Many of the practices and requirements being discussed will be very costly to implement. High cost regulations without offsetting economic returns will place an extremely heavy burden on our farms and families - especially for those of us who don't accept government cost share. We hope required cures will be cost effective and have an implementation window long enough to allow them to be repaid with earnings.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0669.001.004

Author Name: Burkholder J.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fourth: Proposed practices will place significant economic burden on agribusinesses - especially poultry integrators. These businesses could easily shift to other areas of the country with less stringent and less costly environmental requirements. Our family farms may lose income generating opportunities and no longer be viable if a shift like this occurs.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0669.001.007

Author Name: Burkholder J.

Organization:

P.S. Please consider that if the farmers are not able to produce, due to financial burdens, those in the highest offices in Washington, D.C. will not remain unaffected. Too often our enlightened American people have been slow to understand where their daily food comes from. Failure to recognize the fragility of the food cycle invites serious trouble. If the city goes hungry, and they come out to the country to scavenge, will we be able to help them?

Response

EPA acknowledges the comment.

Comment ID 0684.1.001.004

Author Name: Saunders Jim

Organization: Saunders Brothers, Inc.

Cost of Compliance and Current Economy

- The Bay TMDL, which requires Virginia to develop a Watershed Implementation Plan (WIP), will have a high for compliance for all sectors. While we agree that there is a benefit of clean waters within the Bay and local watersheds, the economic costs for compliance must be balanced, and water quality programs cannot be developed in a vacuum without considering economic impacts to the economy.

- Before moving forward with a finalized Bay TMDL, EPA must conduct a non-biased economic impact analysis. Experts from land-grant universities from across the watershed could be called upon to evaluate the actual costs of meeting water quality standards for businesses, citizens, localities, states, and the federal government.
- Agriculture has the benefit of estimating some expenses based on existing data on cost of implementing AgBMPs through current state and federal programs.
 - o Virginia estimates that just one practice (cattle fencing) could cost more than \$800 million to implement. Fencing cattle from streams, putting in crossings, providing alternative watering, etc costs on average \$30,000 for a Virginia cattle farmer.
 - o Virginia's Natural Resources Commitment Fund says AgBMP cost-share funds will need to be \$63.2 million annually from 2025 in order to get 60% NPS reduction goals from agriculture. This is only cost-share funding from the state—doesn't account for federal government's traditional share of funding or money that comes from farmers.
 - o Current funding estimates are just based upon the cost of installing the practice, they do not account for costs like loss of productive land, replacing practices when weather damages occur, fluctuations in markets, etc.
- Economic conditions (lack of profits, increased input costs, additional credit not an option) means that extra money to meet regulations is non-existent.
- Due to long-term devastating economic conditions for agriculture (like other sectors), federal backstops alone (mandatory permitting of small dairies, requiring some ag processing plants to do more) will be enough to drive some farmers out of business.
- EPA's federal backstops requiring more unregulated lands to meet MS-4 (urban lands) requirements may cause significant economic hardship for urban landowners, including the green and turfgrass industries.

Response

EPA will not be conducting an economic impact analysis for reasons discussed in the response to comment 0139.1.001.017. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. The intent of the TMDL is not to put any farms or other businesses out of business. EPA directs the commenter to funding sources outlined in Comment 139.1.001.006.

Comment ID 0686.001.001

Author Name: Elder Elder

Organization:

To explain what I'm trying to show on the next page, of course Ag is in the center, it has numerous spokes connecting to the outer circles.

Each of the outer circles are all part of agriculture, also each of these circles have their own, which are not included in the printing, including: medical, housing, banks, and so on.

If the new TMDL affects agriculture, it will affect the economics structure of the U.S.A.

My concern is that it be understood the impact this will have on a major portion of the economic field.

If there are any questions feel free to call: 540-867-5378

[Please see page 2 of the original letter (Docket ID EPA-R03-OW-2010-0736-0686)]

Response

Please see response to 0159.001.001 to address your concerns on economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0689.1.001.020

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

31. Has EPA conducted an economic analysis of its backstop allocation approach, which requires use of the "limit of technology" for both nitrogen and phosphorus, on the ratepayers of the municipal wastewater treatment plants in Pennsylvania?

Response

EPA has not conducted any economic analyses as discussed in the response to comment 0139.1.001.006.

Comment ID 0691.1.001.007

Author Name: Kirk Ken

Organization: National Association of Clean Water Agencies (NACWA)

The TMDL does not consider the cost-effectiveness of various nutrient and sediment controls and largely ignores the enormous cost to implement the proposed nutrient reductions. Combined with the aggressive schedule for meeting the TMDL goals, the cost burden on Bay watershed communities for meeting their load reductions will no doubt push beyond the limits of affordability. Combined with the other regulatory mandates these communities must meet, the TMDL simply does not reflect economic reality.

For stormwater, even EPA's own estimates put the cost of retrofitting at close to \$8 billion annually for the Bay watershed. The actual costs will likely be significantly higher than that, particularly because EPA's backstop for stormwater calls for cities to meet aggressive new performance standards for 50 percent of urban lands through redevelopment requirements and retrofits. The requirement for retrofits is particularly concerning to NACWA, as the costs to cities to replace existing stormwater management infrastructure will be severe and will be on top of significant sums already being spent to meet combined sewer overflow and sanitary sewer overflow consent decrees.

Response

Please refer to the response to comment 0139.1.001.017. Please see the response to 0501.1.001.005 for discussion of public sector point sources and the response to comment 0067.1.001.009 for consideration of WIP backstops.

Comment ID 0700.001.001

Author Name: Tamberrino Frank

Organization: Harrisonburg-Rockingham Chamber of Commerce

The agricultural community has taken and continues to take voluntary steps to reduce runoff and mitigate environment impacts from farming. In fact, our Chamber recognizes a farm family each year for their stewardship and sustainable agricultural practices. Much of agriculture is also already regulated by state agencies. Municipal and industrial wastewater treatment plants in the Valley have spent tens of millions of dollars to reduce their nutrient discharges. Developers have implemented storm water and erosion control practices.

Voluntarily, more can and will be done to improve water quality. However, the proposed TMDL and associated mandates will impose new regulatory burdens that will have a devastating economic impact upon Virginia, and the Shenandoah Valley in particular. The economic harm would be counterproductive to Bay restoration goals by depriving the private and public sectors with resources for continuing environmental progress.

Response

EPA commends all efforts made thus far to improve water quality. EPA is under a legal obligation to establish the TMDL and cannot wait to see how much progress can be achieved by voluntary efforts. Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost.

Comment ID 0701.001.001

Author Name: Barnes Walter

Organization: Jackson Township, Tioga County, PA and Partner, Maple Knoll Farm

Jackson Township has approximately one quarter of our households on a 5 year old sewer system. 370 homes and

businesses are in the system. The engineering design firm assured us our plant would exceed all requirements at the time of construction. If the passage of Senator Cardin's Bill, S1816 is enforced, we will be forced to remodel our sewer plant to meet the proposed additional regulations. The costs to our residence for this plant is currently \$10,000/ household at \$32/ household / month for a 45 year loan with the total cost of 3.8 million for construction Our residents are not wealthy, many are on social security, with no cost of living increase for the second year and any retirement savings having shrunk drastically, we can not raise our rates to update the sewer plant. We ask EPA to look and see what we have accomplished in our township to clear up the bay and give us time to get the present plant paid for.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0702.001.002

Author Name: Eberly N.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Second: Many of the practices and requirements being discussed will be very costly to implement. High cost regulations without offsetting economic returns will place an extremely heavy burden on our farms and families - especially for those of us who don't accept government cost share. We hope required cures will be cost effective and have an implementation window long enough to allow them to be repaid with earnings.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire

for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0702.001.004

Author Name: Eberly N.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Fourth: Proposed practices will place significant economic burden on agribusinesses - especially poultry integrators. These businesses could easily shift to other areas of the country with less stringent and less costly environmental requirements. Our family farms may lose income generating opportunities and no longer be viable if a shift like this occurs.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0702.001.007

Author Name: Eberly N.

Organization:

One thing that is a concern to me is the fact that we as a nation are getting more and more dependent on foreign countries, it appears too that the plan that is being considered will not be cost effective, nor is it going to achieve the goals you all expect, then what? The farmer can not stay in business... So we'll just get our food from other countries

that will not have the quality standards America ask from their own farmers, and by the way, the terrorists would like to start feeding our nation.

It seems like the farmer's have to keep doing more and more so Merck and the Sewer Treatment plants etc keep dumping their loads in. It seems like where ever the most money is that is who possibly gets off easier, but just don't forget where our food comes from.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0704.001.003

Author Name: Sawyer C.

Organization:

I do not believe that the DEQ should rewrite the TMDL regulations to "penalize" point sources. The EPA is currently rewriting many air + water regulations that will have a significant impact on my industry so much so that many of the smaller facilities will shut their doors due to "heightened costs of doing business." Jobs are important too! We need a balanced approach with all "polluters" equally charged to fix the problems.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please note that a TMDL is not a federal regulation.

Comment ID 0709.001.004

Author Name: Schneider Richard

Organization: Southern States Cooperative, Inc.

Agriculture has the benefit of estimating some expenses based on existing data on cost of implementing AgBMPs through current state and federal programs.

o Virginia estimates that just one practice (cattle fencing) could cost more than \$800 million to implement. Fencing cattle from streams, putting in crossings, providing alternative watering, etc. costs on average \$30,000 for a Virginia cattle farmer.

o Virginia's Natural Resources Commitment Fund says Ag BMP cost-share funds will need to be \$63.2 million annually from 2025 in order to get 60% NPS reduction goals from agriculture. This is only costshare funding from the state - doesn't account for federal government's traditional share of funding or the money that comes from farmers.

o Current funding estimates are just based upon the cost of installing the practice, they do not account for costs like loss of productive land, replacing practices when weather damages occur, fluctuations in markets, etc.

Economic conditions (lack of profits, increased input costs, additional credit not an option) means that extra money to meet regulations is non-existent.

Due to long-term devastating economic conditions for agriculture (like other sectors), federal backstops alone (mandatory permitting of small dairies, requiring some ag processing plants to do more) will be enough to drive some farmers out of business.

EPA's federal backstops requiring more unregulated lands to meet MS-4 (urban lands) requirements may cause significant economic hardship for urban landowners, including the green and turfgrass industries.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024. EPA also reminds the commenter that the TMDL is not a regulation.

Comment ID 0720.001.003

Author Name: Turna Margaret

Organization: Town of Chenango, Binghamton, New York

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars . This will have dramatic impacts on the economies of the Southern Tier as farms close faced with the cost of compliance and economic development is hindered by an additional cost of doing business.

Response

EPA directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0721.001.002

Author Name: Knicely K.

Organization:

My concern is that if these mandates are put in place as law it will be economically impossible to continue to farm. If farmers are forced from the land it most likely will be developed which is inherently more polluting than farm land. I am of the Mennonite faith and do not accept government cost share. Thank you for considering our pleas.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0722.001.001

Author Name: Lant A.

Organization:

This letter is in response to the draft Chesapeake Bay total maximum daily load (TMDL) issued by your agency. Being a dairy farmer in New York State your rulings will directly impact us. We are beseeching you to please listen to and take into account our concerns stated throughout the rest of this letter.

The dairy industry has endured many financial blows the last several years testing us in all areas of our lives; we recently attended an EPA DEC meeting Elmira New York on the TMDL. We came away certain that our biggest test will be coming in the very near future . Your agency is regulating smaller Farms right out of business . We heard that there may be cost sharing ; although no one would talk about the cost to us or the State of New York.

As the financial crisis hits more sectors in our community. We often hear we need to put more money into more populated areas. This seems to be the case with the Chesapeake Bay TMDL. You will sacrifice the less populated areas for the greater good of the masses, even though there will be no financial or environmental impact on their lives. No one is forcing them to meet the standards that you will be expecting us to follow.

Response

The Chesapeake Bay TMDL is not a regulation. All parts of the Chesapeake Bay watershed will be reducing the nitrogen, phosphorus and sediment loadings that are contributed to the Bay in order to meet water quality standards. Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0724.001.005

Author Name: Bernardo John

Organization: Town of Union, Endwell, New York

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier as farms close faced with the cost of compliance and economic development is hindered by an additional cost of doing business.

Response

Please see the response to comment 0734.001.003.

Comment ID 0726.001.001

Author Name: Belfield G.

Organization: Town of Tappahannock, Virginia

We expect to do our part for the Bay restoration. In fact, our WWTP has just completed an upgrade project with nutrient removal technology. Our existing 0.8 mgd WWTP was upgraded to a 4-Stage Bardenpho suspended growth activated sludge nutrient removal treatment system followed by deep-bed tertiary filters in order to meet Tributary Strategy requirements for the Rappahannock River basin and the assigned wasteload allocations issued via the general watershed permit . Chemical feed and storage facilities were also constructed for supplemental carbon and aluminum sulfate addition which are required to meet nutrient removal requirements. The total construction cost for the upgrade project was approximately \$8.7M and total project costs were approximately \$9.2M.

The upgraded facility will have significantly higher energy and chemical costs. It is estimated that at current flows,

additional energy and chemical costs attributed to nutrient removal will be 50,000 per year, increasing to an additional 100,000 per year at design flows. In the past two years, we have increased our rates thirty-two (32) percent to cover the debt service and increased operation and maintenance costs for the WWTP nutrient removal upgrade project.

Response

Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 which discusses public sector point sources.

Comment ID 0726.001.005

Author Name: Belfield G.

Organization: Town of Tappahannock, Virginia

In closing, what is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years) . As an organization with a demonstrable commitment to clean water, we object to the waste inherent in EPA's threatened override of the Virginia Regulations and Virginia WIP through the Draft TMDL and its elements that relate to our WLAs.

Response

Please see the response to comment 0184.1.001.005 .

Comment ID 0727.001.007

Author Name: Thigpen Janet

Organization: Steuben County Environmental Management Council

New York State is already a very good neighbor to the Chesapeake Bay, delivering clean water with lower pollutant loads than other parts of the watershed. This is the result of low intensity land use (76% forest), low population density, stable population, progressive natural resource management programs, regulatory programs that exceed federal requirements, and a strong environmental ethic among watershed residents . The depressed economy of this region cannot support costly additional measures to further reduce nutrient and sediment loads, particularly those in the proposed federal backstop . The proposed regulations would burden our farm communities with costly mandates that would weaken rural economies and disrupt local food systems. New York communities would be required to spend an estimated \$250 million to retrofit and rebuild Waste Water Treatment Plants . Extensive stormwater retrofits would also

be required, even though it is generally recognized that this approach is among the most expensive ways to reduce nutrient and sediment loads . The draft TMDL mandates these costly measures even though they are unlikely to achieve the unreasonably low load allocation that EPA has assigned to New York. Given the reality of limited financial resources, the TMDL should be revised to target the most cost-effective approaches and locations for achieving water quality objectives.

Response

Please see the response to comment 0080-cp.001.002 addressing equity and New York and the response to comment 0067.1.001.009 for discussion of EPA’s WIP backstops.

EPA will not be revising the TMDL to target cost-effective approaches for reasons discussed in the response to comment 0139.1.001.017.

The TMDL is not a proposed Federal regulation.

Comment ID 0728.001.001

Author Name: Proto Frank

Organization: Tompkins County Water Resources Council

the Federally designed TMDL, intended to limit nitrogen, phosphorous and sediment discharges into the Chesapeake Bay watershed, is now projected by the New York Farm Bureau to cost New York State as much as \$250 million by 2015, without being able to satisfy EPA's regulatory goal, and

Response

The goal of the TMDL is to meet the Water Quality Standards for the Chesapeake Bay and the TMDL is calculated based on this goal. If fully implemented, the TMDL will meet the goals for which waterbodies are designated. For a discussion of the considerations of cost, please see the response to comment ID 0139.1.001.017.

Comment ID 0728.001.003

Author Name: Proto Frank

Organization: Tompkins County Water Resources Council

according to our local Soil and Water Conservation District (SWCD), the proposal also includes requiring the important CAFO regulations, designed for very large-scale animal operations, to be extended to every animal operation in the basin, which, without significant financial help, might put the smaller operations out of business,

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0729.001.004

Author Name: Hannon Dennis

Organization: Village of Johnson City, Johnson City, New York

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier as farms close faced with the cost of compliance and economic development is hindered by an additional cost of doing business.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0730.001.002

Author Name: Horst R.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Second: Many of the practices and requirements being discussed will be very costly to implement. High cost regulations without offsetting economic returns will place an extremely heavy burden on our farms and families - especially for those of us who don't accept government cost share. We hope required cures will be cost effective and have an implementation window long enough to allow them to be repaid with earnings.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0730.001.004

Author Name: Horst R.

Organization:

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Fourth: Proposed practices will place significant economic burden on agribusinesses-especially poultry integrators. These businesses could easily shift to other areas of the country with less stringent and less costly environmental requirements. Our family farms may lose income generating opportunities and no longer be viable if a shift like this occurs.

Response

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For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0734.001.003

Author Name: Augenstern Robert

Organization: Southern Tier East Regional Planning Development Board (STEPDB)

The implementation of the TMDL will require NYS and local communities to embark on a project addressing agriculture, urban stormwater and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier. Farms will close due to the cost of compliance-and economic development will be drastically hindered by an additional cost of doing business.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0736.001.001

Author Name: Middaugh Robert

Organization: James City County, Virginia

On September 24, 2010 the U.S. Environmental Protection Agency released a draft Chesapeake Bay Total Maximum Daily Load (TMDL), a mandatory "pollution diet" designed to restore the Chesapeake Bay and its vast network of streams, creeks and rivers. Being in the Tidewater region of Virginia, James City County understands the Bay is a complex ecosystem and an economic engine for the region, supporting a variety of industries from fishing to tourism.

James City County realizes the importance of protecting the Chesapeake Bay and its James and York River tributaries. James City is a leader in the Commonwealth of Virginia in our protection efforts. We are committed to not only providing mandated environmental programs, but also advanced initiatives authorized by our elected officials, to reduce nonpoint source pollution.

These commitments are characterized by the following: aggressive environmental goals, strategies and actions (GSA's) from our recently adopted 2009 Comprehensive Plan; implementation of a local erosion and sediment control program since 1975; implementation of the Bay Act program since 1990 (first locality in Virginia); implementation of a stormwater management program which adopted more stringent water quantity protections than required and unique water quality design standards; coverage under an MS4 General Permit for the NPDES Phase II program (VAR040037, 2003); the adoption of Special Stormwater Criteria for select areas in the County; implementation of recommendations from our Green Building Design Roundtable (2010); involvement with the Builders for the Bay, Better Site Design Roundtable in 2004, implementation of nutrient management plan programs for turf and landscape areas associated with private and municipal uses (Community Conservation Partnership, Turf Love and other similar programs); award winning water quality (PRIDE) and water conservation (JCSA Let's Be Water Smart) education programs; and a citizen water quality monitoring program.

In addition to these, and perhaps more importantly, is the County's commitment since 1999 to prepare individualized watershed management plans for the County's eleven subwatersheds . Adopted watershed management plans cover nearly 40 square miles (or 28%) of the County's 144 square mile land mass. Our watershed management plans are highly acclaimed as model watershed management plans in the Commonwealth of Virginia.

Response

EPA acknowledges the comment.

Comment ID 0736.001.003

Author Name: Middaugh Robert

Organization: James City County, Virginia

James City County clearly understands the balance between the need for environmental protection and costs involved with the implementation of such efforts as the Chesapeake Bay TMDL. However, in many instances, these costs are imposed on the localities as unfunded mandates by federal and state legislation or agencies. Based on preliminary estimates by the Hampton Roads Planning District Commission, the costs of the pollution diet are staggering - approximately \$501M in capital costs and \$36M a year in annual maintenance costs to James City County. Even if the cost is overstated, costs of this magnitude will greatly inhibit the County's ability to provide basic services such as public safety, public education, family services, transportation and other established local priorities. Without the substantial assistance of the State and Federal governments, this effort will definitely create an adverse impact on our citizens and business community.

Response

Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 for discussion of public sector point sources.

Comment ID 0742.001.001

Author Name: Wells John

Organization: Town of Leesburg, Virginia

Established in 1758, Leesburg is the seat of government for Loudoun County, Virginia, one of the fastest growing counties in the country. The Town has held on to the authentic sense of place, grounded in our 250 years of history, making Leesburg a real hometown. Town character is of paramount importance to Leesburg. In particular, the Old and Historic District is the basis of Leesburg's identity. The pressures for growth in the Town axe the result of the robust

regional economy that will continue to draw more businesses, government jobs and residents . Leesburg's challenge and planning vision is to accommodate its share of that growth while retaining and enhancing the Town's character and quality of life .

The Town owns and operates a Municipal Wastewater Treatment Plant ("WWTP") that cleans and discharges highly-treated wastewater within the Chesapeake Bay watershed pursuant to a State-issued National Pollutant Discharge Elimination System ("NPDES") permit.

The Town is doing their part for the Chesapeake Bay restoration. In fact, our WWTP was upgraded several years ago consistent with Virginia regulations for nutrient removal at a cost of \$17.5 million. A more recent upgrade and expansion including nutrient removal cost \$.637 .5 million. Our Operation and Maintenance (O&M) costs have increased substantially because of the additional chemical feed, solids handling, energy use, and equipment and treatment processes maintenance. A further upgrade to the backstop levels included in the draft TMDL is estimated to cost approximately \$20 million dollars and will add thousands of dollars per month to our O&M costs. We are a small town of around 40,000 people . Our customers are already stressed because of the high cost of our recent upgrades . Any further cost will only aggravate the situation and the Town would have to borrow the money which might negatively impact our bond/credit rating because of higher debt.

Response

Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 for discussion of public sector point sources.

Comment ID 0746.1.001.009

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

New York, and Particularly the Residents of Its Southern Tier, Cannot Afford To Pay The Costs Which Would Be Necessary To Achieve the Draft New York Allocations

Even if New York could achieve its Nitrogen allocation, there would be little or no measurable, let alone visible water quality benefit in New York [FN13]. Neither NYSDEC nor the USEPA can impose on New Yorkers, especially, as discussed below, those living and working in the Southern Tier, to bear virtually all of the New York's implementation costs. NYSDEC estimates that implementation of its proposed WIP will cost \$440 Million.[FN14] If the federal Backstops are included, the cost will likely be \$2 to 4 Billion. [FN15]

Wastewater or BMP installation and implementation rates costs cannot be looked at in isolation when considering whether something is affordable. The outdated USEPA assumption [FN16] that residents can afford to spend up to 2 % of their median householder income on wastewater-related fees cannot be used as a basis for concluding that the implementation costs that would be required if the Draft TMDL is adopted are affordable by New York Bay Watershed

residents. As shown in Table 3, this simplistic assumption ignores the financial realities of this portion of New York and given poverty levels, violates EPA's own "environmental justice" policies against environmental programs disproportionately negatively impacting such populations. Using Chemung County (CC) as an example, data from the US Census Bureau paints a stark picture of the current economic realities of live in much of New York's southern tier.

[See Table 3 on page 18-19 of original comment letter 0746.1]

* Source: US Census Bureau 2006-2008 American Community Survey for Chemung County [FN17]

In addition to the New York portion of the Bay Watershed being in an economically depressed area, its resident's cost of living for basic necessities is higher than much of the nation's. Consider the following facts compiled by The Tax Foundation [FN18] and the U.S. Energy Information Administration [FN19].

- New York's State/local tax burden is the second highest in the nation.
- New York's State and local sales taxes rank 11th in the nation.
- New York's gasoline tax, at 44.6 cents a gallon, is the highest in the nation.
- Chemung County's property taxes as a percentage of the median house value are the 4th highest in the Nation. Other New York Bay watershed counties which rank in the top 30 property tax counties in the Nation in this category include Onondaga (7th), Steuben (9th), Madison (10th), Oneida (19th), Broome (23rd) and Tompkins (28th).
- New York's residential electricity rate (as of July 2010) was 19.58 cents per kilowatt hour as compared to the national average of 12.01.

Put simply, residents of the New York portion of the Bay watershed simply do not have the wherewithal to pay the bulk of the cost to meet the requirements anticipated by the draft New York Phase I WIP, let alone the cost of any of the federal Backstops which are included in the final TMDL. The communities that are Coalition members understand that they must spend their tax dollars wisely and ask our residents, farmers and industry to do what is necessary, but this cannot include paying for things which will not benefit the local environment, are unachievable, do not require an equivalent magnitude of sacrifice from the communities that do directly benefit, and which are based on inaccurate and outdated assumptions which disregard progress made to date to achieve these objectives. The inclusion of any of the federal Backstop provisions in the final TMDL would amount to EPA endorsing a notion so implausible (that is, the concept that the required actions can all be funded between now and the end of 2025), so as to render the TMDL unapprovable. EPA's imposition of the TMDL causes a burden on interstate commerce that is excessive and not incidental to the local benefits that would be received by implementation of the TMDL. See *Sherwin-Williams Co. v. National Paint and Coatings Ass'n*, (334 F. Supp. 2d 187 (N.D.N.Y.2004)).

EPA's TMDL would place an excessive burden on interstate commerce because, among other reasons, the limits are not technically feasible, are stricter than the standards in other states, are proportionately more restrictive than the TMDL limits in other Chesapeake Bay states, imposes a financial and administrative burden on Coalition members and other entities that outweighs the benefits that would be received by Coalition members and the State of New York, alternative standards exist that would not burden interstate commerce and EPA's TMDL would impede the marketing of Coalition members' goods in New York State and the interstate marketplace in general.

As shown above, New Yorkers living within the Bay watershed certainly can't pay these costs by fee increases alone (e.g. bond issuances). While bonding most of the capital improvement costs might be feasible for some of these municipalities. New York municipalities have only two ways to pay for incurred costs. They must either increases local

taxes, or secure financing through increasing their indebtedness. Further, operation and maintenance (O&M) and other on-going expenses can only be paid by taxes or fees [FN20]. New York municipalities must be not only environmental stewards, but also good fiscal stewards. Before they can accept a new or modified individual or General SPDES permit from NYSDEC which would entail capital improvements, especially on the scale envisioned by the Draft TMDL with federal Backstops, the municipalities ensure that they have the ability to raise funds to pay both the capital and the ongoing O&M costs of these improvements. If they cannot pay for the improvements that would be necessary to meet the proposed permit requirement, they may not legally be able to accept the modified permit.[FN21]

Once the allocations are included in a final TMDL, if New York then accepts and adopts that TMDL (see section II(F) below), it will then be bound by the CWA and EPA's implementing regulations to include those allocations in its subsequent Individual, Industrial Stormwater, MS4 and CAFO General SPDES Permits. Because New York cannot approve a TMDL which it knows cannot be implemented within the timeframes built into the TMDL, due to cost and other reasons, it will have no option but to refuse to adopt the Bay TMDL. To approve it would be both contrary to the clear evidence before it achievement of the TMDL stated allocations and endpoints within the specified timeframe is impossible.

[FN13] NYSDEC has indicated that some of the streams within the New York portion of the Bay watershed are likely impaired to some extent by Phosphorus, and hence some of the Phosphorus reductions called for by the Draft TMDL would likely lead to a measureable and, perhaps even visible, water quality improvement within the State.

[FN14] Source: NYSDEC presentations at the October 23 and 24, 2010 Public meetings in Elmira and Binghamton NY. The figure includes the - \$75 Million already invested in the Binghamton-Johnstown Joint Sewer Board treatment plant upgrade.

[FN15] Source: NYSDEC presentations at the October 23 and 24, 2010 Public Meetings in Elmira and Binghamton NY.

[FN16] Combined Sewer Overflows--Guidance for Financial Capability Assessment and Schedule Development Environmental Protection Agency, Office of Water, Office of Wastewater Management EPA 832-B-97 -004 (February 1997).

[FN17] http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=Search&geo id=04000US36&_geoContext=OIOOOUS%7C04000US36&_street=&_county=Chemung&_cityTown=Chemung&_state=04000US36&_zip=&_lang=en&sse=on&ActiveGeoDiv=geoSelect&_useEV=&pctxt=fph&pgsl=040&_submenuld=factsheet_I&ds_name=ACS_2008_3YR_SAFF&_ci_nbr=null&q_r_name=null®=null%3Anull&_keyword=&jndustry=

[FN18] See <http://www.taxfoundation.org/research/topic/46.html>.

[FN19] See http://www.eia.doe.gov/electricity/epmltable5_6_a.html

[FN20] In general, and as an example, towns in New York have no general power to borrow money for municipal purposes or to pay town charges, the policy of the law being that such charges shall be met by taxation. A town may not be made liable for money borrowed on its credit simply because it has been applied for town purposes. *Wells v. Town of Sauna*, 119 N.Y. 280 (1890). Section 125 of New York's Second Class Cities Law provides that no person shall have power to make any purchase or contract any debt for which the city shall be liable unless specifically authorized. *Wooley v. City of Schenectady* 226 A.D. 383, (3rd Dept. 1929). Finally, New York municipalities must typically obtain specific legislative authority to contract virtually all indebtedness. *Adrello v. Dulan*, 1966, 2 NY.S.2d 738 (Sup. Ct. Oneida County 1966).

[FN21] The Coalition acknowledges that NYSDEC could issue Permits with these limits unilaterally. However, all this would do is force permit violations to accrue, adding significant monetary penalties on top of the capital costs (which the municipality would have already concluded could not be paid).

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0746.1.001.022

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

NYSDEC estimates that implementation of its proposed WIP, with its emphasis on all WWTPs optimizing their Nt and Pt removal capabilities and with a number of them having to also do chemical addition-related Pt removal will cost an estimated additional \$140 Million, plus significant increased ongoing O&M costs. If the federal Backstops are put into place, NYSDEC has estimated that the cost will skyrocket to \$1 to 1.5 Billion.

In addition, most of the New York Bay Significant WWTPs are small, especially compared to many of the municipal WWTPs in the southern part of the Bay watershed. As shown in Table 4, a 2009 EPA publication provided the following flow versus cost data for BNR upgrades. As can be seen, for WWTPs with flows less than 1 MGD, the cost to upgrade for BNR at a WWTP with a design capacity between 0.1 and 1 million gallons a day is 13.7 times as expensive as to do the same removal at a WWTP with a capacity higher than 10 MGD.

[See Table 4 on page 38 of original comment letter 0746.1]

Source: Based on data from MDE (2005) and CTDEP (2007), as summarized in Biological Nutrient Removal Processes and Costs available at

http://water.epa.gov/scitech/swguidance/waterquality/standards/upload/2009_01_21_criteria_nutrient_bio-removal.pdf

In addition to capital costs, BNR (for Nt and/or Pt reduction) and/or chemical removal for Pt requires a significant increase in the cost to operate the WWTP. For example, NYSDEC estimates that removing phosphorus at a WWTP costs approximately \$1 to \$20 per pound [FN38]. The combined increased annual O&M cost if upgraded to optimize two Chemung County Sewer District Plants for Nitrogen removal and to carry out chemically enhanced Phosphorus removal has been estimated to be \$1.75 Million/Year.

In addition, the 26 New York Bay Significant POTWs will be forced to also do other significant and costly mandated upgrades within the next 15 years, including:

- Disinfection, including possibly for some plants, post-disinfection chlorine removal.
- Wet Weather Issues, including significant III reduction and Sanitary Sewer Overflow (SSO) abatement and elimination and for some of Johnson City, implementation of its CSO Long term Control Plan.
- Mercury minimization and compliance.
- Removal of Emerging Contaminants of Concern.

As discussed in Section II (A) above, the entire New York Southern Tier is in the midst of very difficult economic times. Municipalities are struggling with the need to reduce their costs. There is simply no money available to pay for upgrades to the 26 Bay Significant municipal Wastewater Treatment Plants. Similarly, because the census data indicates that Chemung County (and, assumedly, the rest of the New York portion of the Bay watershed) has higher unemployment than the national average, we cannot allow the cost to our industrial dischargers to rise unfairly, because our residents and dairy farmers count on the jobs and services they provide.

In conclusion, our residents and tax payers already face one of the highest tax burdens in the nation. Therefore, unless EPA can commit money from outside New York to construct and operate the upgraded New York municipal and industrial WWTPs which would be necessary to meet the proposed New York WLA, it must be concluded that achieving the TMDL endpoints is implausible. Because of this, approval of the Draft TMDL would be arbitrary and capricious unless most of the capital and increased O&M costs for upgraded municipal and industrial wastewater treatment, whose benefit will largely be experienced by people living outside New York, is paid for by non-New York sources.

[FN38] Source: NYSDEC Factsheet on new ban on Phosphates Dishwasher Detergent and Fertilizers available at [http://www .dec.ny.gov/chemical/V67239 .html](http://www.dec.ny.gov/chemical/V67239.html).

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0746.1.001.029

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Agriculture is New York's most important industry. The farm economy generated \$4.45 billion in 2008. Farm income is used for employee compensation (\$461 million), maintenance and repairs (\$180 million), property taxes (\$223 million), marketing and transportation (\$106 million), and energy costs (\$267 million), according to 2007-08 data. [FN41] There are approximately 35,000 farms in New York State, 99 percent of which are family owned. A viable and strong agricultural industry is not only beneficial to the State's farm and food industry, but to the economy of the State as a whole, hundreds of local communities, and to all consumers of New York.

While the NY draft WIP's projection of \$170 Million of likely available federal and State moneys to support implementation of this part of the proposed Phase I WIP is probably reasonably accurate, it will only cover approximately 40% of the estimated \$420 Million [FN42] it will cost to implement the plans in this document.

The mainly small to mid-sized NY farms within the CB watershed can simply not afford to pay the other 60% (~\$250 Million). Even if this part of the proposed Plan is able to be fully implemented, it still will not achieve EPA's estimated NPS agriculture portion of the NY NPS allocation.

NYSDEC's estimate as to the cost to meet the identified federal Backstop BMPs for agriculture is between 1 and 3 Billion dollars. This cost simply cannot be born by our Bay watershed farms. If forced to do so, many of them will have no options but to cease farming.

Because neither the NY Draft WIP nor, especially, the federal Backstop NPS agricultural BMPs included in the TMDL can be funded by the identified combination of federal, State, local and farm-based sources of money, it is asserted that the proposed New York NPS allocation is both unfair and simply unachievable, at least by the year 2025.

It is noted that NYSDEC never agreed to the 2025 deadline, which we believe is unrealistic and unnecessary. While we realize that this deadline is court imposed, history has shown that EPA has often gone back to the courts to get unmeetable water-related deadlines extended where there is good cause. A recent examples include the nearly decade long CWA 316(b) Cooling Water Intake Structure rules in the schedule for the rule promulgations pursuant to *Riverkeeper, Inc. v. Johnson*, U.S. District Court, Southern District of New York No. 93 Civ. 0314 October 12, 2005 was amended twice.

[FN41] Source: NY Farm Bureau website.

[FN42] For example, New York State Agriculture Commissioner Patrick Hooker, has indicated that the measure would cost the 900 Southern Tier farms located in the Chesapeake Watershed approximately \$250 million over the next 15 years on top of the \$170 Million that is likely to be provided by State and federal agencies. See, http://www.nyfb.org/resources/topic_detail.cfm?ID=282.

Response

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0746.1.001.031

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Retrofitting of Existing Storm Discharges

In New York, the stormwater sector represents only a small percentage of the overall nutrient loading leaving the state and reaching the Bay. According to the 2006 New York State Tributary Strategy for Chesapeake Bay Restoration, approximately 5 percent of New York's nutrient load is attributed to urban sources. Furthermore, it is anticipated that this percentage will become further reduced, given the recent New York State legislation placing restrictions on nutrients in home fertilizers discussed in Section I above.

If the urban stormwater federal Backstops are included in the final TMDL, the requirement for the retrofitting of existing stormwater discharges with structural treatment practices would place an immense financial burden upon municipalities, with little benefit in regards to nutrient reduction. The Draft TMDL's Backstop allocations would require 50 percent of the urban MS4 lands to meet aggressive performance standards through retrofit/redevelopment. The NYSDEC has estimated an associated cost of \$1 to \$6 billion to accomplish this. The cost-effectiveness of this requirement would be non-existent, given the limited additional nutrient reduction it would trigger.

In regards to MS4s within a watershed that has nutrient TMDLs, the requirement for the retrofitting of existing stormwater discharges should not automatically be imposed. In the case of the Chesapeake Bay Watershed within New York State, nutrient loads from MS4s within the watershed are only a small portion of the overall loads to the Bay. Furthermore, the ratio of cost (\$) per lb of nutrients removed is exceedingly high for urban stormwater. Simply, removing nutrients from urban stormwater via storm system improvements most likely is not a cost-effective means to reducing the overall nutrient load to the Bay.

Response

Federal backstops in the final TMDL will be based upon an individual jurisdictions final Watershed Implementation Plan submittal that was due on November 29, 2010. For more information on the backstops in the final TMDL please see Section 8 of the final TMDL where any actions taken will be described. Please see response to 0159.001.001 to address economic impacts. Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0766.001.006

Author Name: Schafer Christa

Organization: Delaware County Board of Supervisors

OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

NOW, THEREFORE BE IT RESOLVED, the Delaware County Board of Supervisors strongly opposes this USEPA

unfunded TMDL mandate which is untenable and economically destructive.

Response

A TMDL is not a federal mandate. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0767.001.037

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

The clean-up efforts in the Chesapeake watershed has been eclipsed by protracted economic woes. The environment will ultimately be recognized as a fundamental economic factor, of course. and as Franklin's Poor Richard reminded us, an ounce of prevention is worth a pound of cure.

Response

EPA appreciates the proactive statements provided. For information on studies that support the commentors comments please see response to comment 0251.1.001.002.

Comment ID 0771.001.004

Author Name: Bertoni John

Organization: Village of Endicott, New York

The implementation of the TMDL will require New York State and local communities to embark on a project addressing agriculture, urban storm water and wastewater treatment plants at a cost on the order of billions of dollars. This will have dramatic impacts on the economies of the Southern Tier as farms close faced with the cost of compliance and economic development is hindered by an additional cost of doing business.

Response

Please refer to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

24.2 - BURDEN TO STATES

Comment ID 0089.1.001.010

Author Name: Hunter J. And M.

Organization:

West Virginia is seeing increased funding through the Farm Bill but little augmentation of technical staff to deliver the programs.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions; this includes how to increase technical staff.

Comment ID 0103-cp.001.002

Author Name: Laudeman Todd

Organization: Tioga County Landowners Group

I oppose implementing the proposed Chesapeake Bay TMDL limits because

--The proposed additional limitations will be an unfair burden on NY agriculture, municipal services, taxpayers, businesses, and residents.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. Please see the response to comment 0080-cp.001.002 for information speaking specifically to New York. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0119-cp.001.001

Author Name: Kenyon Mark

Organization: Marick Farm LLC

I own a dairy farm in Delaware County NY . I believe that the EPA's proposed TMDL plan will hurt farmers in this state . Farmers have been very involved with NYSDEC and local soil and water districts on improving water quality . Please consider the possibility that your plan is asking too much from this state .

Response

Thank you for your comment. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0127-cp.001.002

Author Name: Ellerson H.

Organization:

VAC complains that proposed regulations would impose an undue burden on currently strapped agribusinesses, but when times were flush, this constituency was mostly indifferent to the pollution it was causing, so its complaints of financial impairment are ill-timed. I lived on a dairy farm for 3 years and have lived in rural areas since 1973, so I have

witnessed a lot of what is going on.

Response

EPA acknowledges the comment.

Comment ID 0132-cp.001.002

Author Name: Stoner Kirk

Organization: Cumberland County Planning Department

2. There are substantial resource needs that have not been addressed to implement the TMDL. Pennsylvania is facing a nearly \$3 billion deficit in 2011. Programs for agriculture nutrient reduction or stormwater management have been or will be severely reduced. In particular, PA's stormwater management program budget was zeroed out in the 2010 budget. Significant new financial resources will be required to implement the TMDL. Neither the TMDL or PA DEP's WIP has identified the funding sources that will support implementation of the necessary nutrient reduction measures.

Response

On May 12, 2009, President Barack Obama issued the Chesapeake Bay Protection and Restoration Executive Order 13508, which calls for the federal government to lead a renewed effort to restore and protect the Chesapeake Bay and its watershed. Among its directives was the requirement for the Federal Leadership Committee to publish an annual Chesapeake Bay Action Plan describing how Federal funding proposed in the President's Budget will be used to protect and restore the Chesapeake Bay during the upcoming fiscal year. EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0132-cp.001.003

Author Name: Stoner Kirk

Organization: Cumberland County Planning Department

3. EPA needs to consider the level of government that will implement the TMDL and the associated implications. The TMDL will span several states, all with different governmental structures and associated powers. Regardless of the state, the TMDL will create a huge administration and enforcement burden for the implementing level of government. PA DEP has suggested that counties are a likely level of government for implementation. In PA, County planning departments and county conservation districts have extremely limited staff and resources and often have to work with municipalities or farmers to accomplish agriculture or stormwater management regulatory objectives. Without additional

resources, these two organizations will not be able to implement, administer, or enforce the TMDL.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions including staffing resources.

Comment ID 0211.1.001.002

Author Name: McCarthy R.

Organization: Town of Erwin, New York

WHEREAS, clean water and healthy watersheds are a priority for New York farmers, which play a critical role in proven and successful local efforts to conserve and protect New York's natural resources; and

WHEREAS, the United States Environmental Protection Agency ("EPA"), Region 3, has issued draft Chesapeake Bay Total Maximum Daily Load (TMDL), which imposes new allocations and costly federal regulations on approximately 19 counties, 650,000 residents and 2,000 New York family farms within the New York State portion of the Chesapeake Bay Watershed area; and

Response

EPA reminds the commenter that the TMDL is not a Federal regulation, Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0212.1.001.008

Author Name: Greenland Victoria

Organization: Arlington County, Department of Environmental Services, Virginia

Our concern is that under the current draft TMDL, local governments, taxpayers, and others who are actively working to achieve water quality improvements under the Clean Water Act will be undermined by exposure to unrealistic requirements, as well as substantial legal and financial consequences of violating TMDL requirements currently under consideration by EPA. The proposed TMDL framework is not a realistic or sustainable path forward towards the goal of a healthy Bay that we all share.

Response

Please see the response to comment 0067.1.001.009.

Comment ID 0231.1.001.011

Author Name: Boepple Charles

Organization: Upper Occoquan Sewage Authority (dba Upper Occoquan Service Authority)

What is distinctly missing from EPA's Draft TMDL is any appreciation for the major commitments very recently made by EPA and Virginia (the State's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007) and the major financial commitments that local governments have made to implement those requirements including incurring significant public debt (typically with 20 to 30 year repayment terms) and constructing major new facilities (typically built to last 20 to 30 years).

Response

Please see the response to comment 0184.1.001.005 which speaks to your concerns.

Comment ID 0266.1.001.016

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

WHEREAS, supporting businesses, communities and farmers, in their environmental management and pollution control endeavors like the community stormwater management programs and the Agricultural Environmental Management Program, etc. is how government can best aid protecting water quality

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0300.1.001.001

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

VDOT would be affected by the proposed TMDL in several source sectors and would face significant expenditures to

meet the proposed initiatives in the TMDL. We appreciate the opportunity to comment on the Draft TMDL and support EPA's efforts to devise scientific and comprehensive strategies to address the water quality issues within the Chesapeake Bay. However, we share Virginia's Governor McDonnell's and Secretary of Natural Resources Douglas Domenech's concerns "about the process, cost, science, authority, allocations and timeliness" of the draft TMDL raised in the September 3, 2010 letter to the EPA transmitting Virginia's draft Watershed Implementation Plan (WIP).

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to 0379.1.001.006 which addresses concerns with the model. EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Please see the following URL for EPA's statement on why we are not extending the TMDL deadline.

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StatementonBayTMDLCommentPeriod.pdf

Comment ID 0304.1.001.001

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

Pennsylvania's Fifth Congressional District comprises approximately 22% of the Commonwealth and more than half of its 17 counties lie within the Chesapeake Bay watershed. While I recognize the importance of restoring the Bay, I have considerable concerns over implementation of this TMDL draft and the effects it will have on my Congressional district and other areas of rural Pennsylvania. Specifically, I have concerns over the major impacts the TMDL will have on our local governments and farms across the watershed.

Response

Please see the response to comment 0501.001.005 addressing municipal point sources and the response to comment 0139.1.001.006 regarding funding for the agricultural community.

Comment ID 0410.1.001.002

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

SHA has developed several scenarios for meeting the TMDL/WIP requirements and the costs are astronomical if

pavement stormwater retrofits are required. SHA made a number of assumptions concerning acceptable strategies and pollutant removal efficiencies in order to develop an implementation plan, schedule and the cost estimate. SHA owns over 24,750 acres of impervious surfaces in the nine MS4 Phase 1 counties. SWM facilities have been constructed since the mid 1980's (last 25 years) on all SHA projects and the current SHA SWM inventory contains over 2000 BMPs treating close to 2,500 acres of pavement. That represents approximately 10% of SHA owned impervious surfaces within the nine counties. The annual cost for maintenance of this SWM infrastructure is currently around \$3 million.

Although we do not have an impervious shape file for the remaining 14 counties, we have estimated the impervious coverage in these areas based on lane miles. In order to treat 40% of the SHA impervious in the MS4 Phase II and non-MS4 areas, controls would need to be installed for approximately 6,250 acres. The estimated cost for design and construction is significant. These costs would be in addition to the costs above for the MS4 Phase I jurisdictions. According to the TMDL, 40% treatment of impervious surfaces will be required but the MD WIP lists both 20% and 40% restoration requirements for these areas.

Based on our current budget and the demonstrated expense of stormwater impervious retrofits, our current capacity is 2% retrofit over the next ten years. Unlike local jurisdictions, SHA cannot legally impose a stormwater utility tax on the travelling public to generate a source of revenue to meet these restoration goals. For this reason, increased federal funding is essential for meeting the TMDL allocations.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources. With regard to EPA's rationale behind WIP backstops and how it has changed, please see the response to comment 0067.1.001.009 and section 8 of the TMDL.

Comment ID 0432.1.001.005

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

It makes little practical sense for Bay states to be forced to implement an oppressive plan of environmental response that no one can feasibly afford.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire

for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

24.3 - AVAILABILITY OF FUNDING

Comment ID 0036-cp.001.001

Author Name: Redman Bicky

Organization: Adams County Environmental Services

A few years back I worked with our local non-profit land trust on a very successful source water protection project involving the preservation of a number of tracts of land bordering a creek that serves as a drinking water supply for several municipalities. For these efforts, we received an award from EPA Region III. I bring this to your attention because one of the most successful ways to protect the Bay is to preserve and manage its land base, especially its forested areas. And, that is why I would like to garner your support for the protection of forested areas in the Bay's watershed by targeting funding efforts through the federal Forest Legacy Program. Make funding available (such as block grants) to qualified organizations to purchase permanent forestland easements for a set period of time, such as five years or longer to accomplish this task. Currently, the Forest Legacy Program is rather competitive so forestlands that could be protected now in Adams County await funding for many years. We hope they will be there in the future if funding becomes available.

Response

Between the years 2007-2010 funding for land preservation in the Chesapeake Bay watershed totaled \$494,608,685. In addition during that time frame \$29,597,371 went towards land conservation within the watershed. Please see the response to 0038.1.001.024 for additional information.

(Specific dollar amounts taken from Chesapeake Stat: <http://stat.chesapeakebay.net/?q=node/3>)

Comment ID 0038.1.001.033

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

Opportunities for funding must also be closely studied for without funding, it is hard to motivate or convince people that our cause is legitimate and realistic.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0044.1.001.003

Author Name: Blackwood Lorene

Organization: Virginia Green Industry Council

We feel that having specific funding for education and plan implementation, engaging the public, targeting school children and homeowners is vital for any successful Bay clean-up.

Response

Between the years 2007-2010 funding from federal sources for watershed education totaled \$13,817,955 and \$13,745,243 from State sources. Across those years funding across all sources totaled \$31,207,415. In addition there was \$19,534,616 across all funding sources focused towards citizen engagement, of that total \$14,336,075 came from federal sources. The President's proposed budget for FY 11 contains a half a billion dollars in federal monies for restoration of the Chesapeake Bay, included in that amount is funding for education and citizen engagement. Education and outreach are an essential piece to addressing environmental issues and EPA and other federal agencies are committed to further the education to all stakeholders in the Chesapeake Bay watershed.

References:

Specific dollar amounts taken from Chesapeake Stat: <http://stat.chesapeakebay.net/?q=node/3>

Comment ID 0052.1.001.002

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

Please consider these realities under which local governments have operated in recent years:

- Because of the state's fiscal conditions, state aid to localities has fallen by \$1 billion since 2008.
- These cuts in state aid have affected the quality of our public schools, mental health programs, social services and public safety.
- The fiscal conditions of recent years have forced many local governments in Virginia to cut back services and their workforces.
- Between June, 2009 and June, 2010, in just one year, 15,600 local government jobs in Virginia disappeared.

These points are not being made to suggest that we should not be active partners in improving water quality. In fact, local governments have done the lion share of the work in this area. Our chief contention is that there is a major role

that federal and state governments must make in underwriting the costs of the very costly programs that the Chesapeake Bay TMDL will generate.

Response

Thank you for the constructive points on the economic realities we are facing. EPA does not dispute the costly nature of improving water quality in the Bay watershed. EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see our previous response to your comment Please see response to Comment ID 0139.1.001.017 where we discuss the desire for trading to aid in alleviating some of the financial burden across Bay jurisdictions.

Comment ID 0052.1.001.004

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

Five years ago, I was a member of the Chesapeake Bay Watershed Blue Ribbon Finance Panel, chaired by former Virginia Governor Gerald Baliles. The Blue Ribbon Panel issued a report stating that the "most up-to-date cost of implementing all strategies (associated with restoring the Chesapeake Bay") is \$28 billion in total upfront capital costs, including some items that are primarily for the benefit to local waters, and not the Bay itself." When issuing these estimates, the Panel criticized past efforts to restore the Bay as "poorly coordinated" partly because of its lack of "a permanent funding base that is sufficiently large to do the job." Despite the recent news by EPA about the availability of \$491 million in Bay restoration activities, we fear it falls far short the vast sums needed to restore water quality especially if urban storm water systems need to be retrofitted. These efforts will necessitate, among all participating states, billions of dollars in capital costs that will severely strain local government budgets. While we understand the need to undertake these projects, we need to have a very serious discussion about the legal and financial challenges associated with them that must be recognized by EPA.

Response

Please see the response to 0217.1.001.003.

Comment ID 0058-cp.001.002

Author Name: Smith J. S.

Organization:

I understand from attending the EPA hearing in Harrisonburg that there are grant monies available to farmers to

find/construct other water sources, build fences, etc. to keep local waters clean. We must reach these farmers and convince them to do these things.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and response 0044.1.001.003 discussing funding for citizen outreach which includes outreach to farmers.

Comment ID 0064-cp.001.007

Author Name: Hutchins Lawrence

Organization: Quail's Nest Industries

Forest landowners and harvesters likely require access to incentives similar to those available to other sectors

Response

Please see the response to 0036-cp.001.001 outlining the funding for forestry.

Comment ID 0070.1.001.003

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR believes that the focus should also be on working with the local community groups to raise the level of the segments that are impaired either by watershed or stream segment to become eligible for additional funding through other State Agency programs such as the PA DEP's Set Aside Program, under the Title IV, Surface Mining Control & Reclamation Act (SMCRA), 2006, as amended, as a Qualified Hydrologic Unit (Qualified Hydrologic Unit). Currently, throughout the Susquehanna River Basin, there are only 4 watersheds and or segments that qualify for additional Federal funding under SMCRA. For instance in Luzerne County, there is not a single watershed or stream segment that is impaired on the Federal List of Impaired Waters, formerly known as the 303 (d) List, that is eligible for Federal funding under this Title IV Program until a QHU Plan is developed. Our organization would like to assist in the development of these QHUs, provided that future funding is made available to provide the local community watershed associations and local governments with the technical expertise and assistance that would qualify segments within their watershed boundaries or political jurisdictions for funding. EPCAMR realizes that this is a separate funding source and that historically PA Growing Greener Funding under the Watershed Environmental Stewardship Fund through the Section 319 Program has provided funding for other types of projects, including AMD assessment and remediation.

Response

EPA agrees that encouraging and funding activities conducted by local community groups and organizations is important for the successful implementation of the TMDL. While federal resources and funding opportunities for projects and activities to reduce nutrient and sediment loads to the Chesapeake Bay may be limited, EPA does provide a number of funding opportunities through grants, loans and cost sharing. Please refer to our webpage located at http://water.epa.gov/grants_funding for more information. Regarding SMCRA funding, EPA is not responsible for funding sources under the Title IV, Surface Mining Control and Reclamation Act and can not speak to the qualifications or criteria for funding projects under SMCRA.

Comment ID 0070.1.001.025

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR understands that without clean water, land, and water, the social, recreational, economic, and environmental vitality of the Commonwealth and in the Chesapeake Bay Watershed, our children will be severely disadvantaged for future generations. PA DEP and the US EPA should continue to be the true leader in the continuing efforts to research and implement remediation and reclamation techniques on abandoned mine lands and the other environmental issues that have plagued the Bay for decades. Not all decisions are best made at the Federal level or State level through regulations and compliance.

EPCAMR believes that given the adequate amount of funding, expertise, engineering assistance, technical assistance, and guidance from the Commonwealth, groups like ours and other community groups and municipalities at the local level CAN effectively and HAVE implemented many of the ideas presented or suggested in this public comment document. Too many stream miles have been on the Federal List of Impaired Waters due to AMD for as long as I have been the Executive Director for EPCAMR, and slowly some of them are being removed due to the hard work and efforts of community volunteers, watershed organizations, and assistance from various State, Federal, County, and Local level partners. Additional funding has to find a way down to the local level for implementation. Other states should follow our lead. Let's Change the Chesapeake! While I firmly believe the motto that "We All Live Downstream", I also believe that we need to lead by example and take care of PA's watersheds first.

Response

Thank you for your comments and interest in the Chesapeake Bay TMDL and for your commitment to clean and restore local waterways. While the main focus of this TMDL addresses nutrients, abandoned mine drainage is a source of sediment and impairment to local waterways. Between the years 2007-2010 funding for abandoned mine drainage in the Chesapeake Bay watershed totaled \$4,468,972. That entire funding amount went to restoration efforts in Pennsylvania. Please see the response to 0038.1.001.024 for additional information on federal funding efforts in the Bay Watershed.

(Specific dollar amounts taken from Chesapeake Stat: <http://stat.chesapeakebay.net/?q=node/3>)

Comment ID 0089.1.001.005

Author Name: Hunter J. And M.

Organization:

Cost share funding will be critical to meeting demands of EPA. Agriculture, lawn care, turfgrass, forestry, have all seen depressed profits, just as the State and local governments have been facing historic deficits. Individual businesses, farmers, and the State cannot meet this unfunded mandate from EPA without significant federal funding.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0102-cp.001.003

Author Name: Goggin Brenna

Organization: Delaware Nature Society

The Farm Bureau and the poultry industry have claimed this new regulations will put Delaware farmers out of business. However, more than \$638 million is already available from the USDA to specifically help farmers in the Chesapeake Bay region meet their TMDL limits through implementation of BMP's and preventing excess nutrients and other pollutants from reaching our waterways.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL. Please note that a TMDL is not a regulation. For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0106-cp.001.004

Author Name: Mosko, Jr. Michael

Organization:

Further, where is the Fed's tax incentives for these land owners to invest in cleaning up their farms/Bay. VA has incentive programs for certain farm related activities... where is the Fed's. Even the land conservation/easement group has managed to obtain tax credits

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0129.001.003

Author Name: Bailey R.

Organization:

I pay plenty of taxes as it is - why don't you provide funding to cover the costs of this mandate?

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0139.1.001.001

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

The Headwaters SWCD believes that we can achieve the remaining needed TMDL reductions through the state's present voluntary programs with consistent and adequate funding.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0139.1.001.009

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

Penalties take away funds the farmer needs to make improvements. Money that would pay an enforcement or regulatory agency salary would be better spent for the implementation of voluntary best management practices through conservation districts. We feel a strengthened Ag Stewardship Program can address the few operations that continue to keep us from meeting our water quality goals.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and response 0044.1.001.003 discussing funding for citizen outreach which includes outreach to farmers.

Comment ID 0139.1.001.011

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

1. Virginia has made great progress by adapting new technology and offering more options
2. The remaining TMDL reductions can be met with an adequately funded voluntary program

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0139.1.001.016

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

7. Adequate and reliable cost-share incentives, not regulation are preferred

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0151.001.008

Author Name: Woodford RC

Organization: Chenango County Board of Supervisors

we object to the fact that in order to satisfy EPA's regulatory goals without confirmation of water quality improvement, EPA has not ensured realistic delivery of needed funding and technical assistance

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, which includes increasing technical assistance.

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Comment ID 0154-cp.001.002

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

We would also like to reiterate the need for adequate funding for the implementation of retrofits and new BMPs as well engineering, inspection, and monitoring costs. The City has no new source of funding for additional projects.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 for a discussion of public sector point sources.

Comment ID 0154-cp.001.007

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- The adoption of stormwater site plans which use many small facilities will significantly increase expenses for inspection and maintenance. Funding needs to be provided to governments and private communities that will provide these services.
- To the extent the additional taxes or other revenue sources are authorized, local governments must receive and control those funds directly so they receive all the money and can make use of the money in the best way given their understanding of local conditions.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 for a discussion of public sector point sources.

EPA does not have authority over how local funding and taxes are provided.

Comment ID 0159.001.008

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Home builders are prepared to play a role and we know we have to do more; but everyone must get in the game, otherwise the past 25 years of deferring the accomplishment of Bay Clean Up will continue. We support:

- Broad based revenue programs in place that will fund much needed retrofit projects in urban areas

Response

One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions.

Comment ID 0159.001.011

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Home builders are prepared to play a role and we know we have to do more; but everyone must get in the game, otherwise the past 25 years of deferring the accomplishment of Bay Clean Up will continue. We support:

- Allowing the market place to seek creative, cost-efficient solutions, not to be laden with prescriptive remedies, that are untested and lack of a cost/benefit analysis.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions.

Comment ID 0197.1.001.003

Author Name: Vickers Bradd

Organization: Chenango County Farm Bureau

In fact, the only limiting factor to increasing New York agriculture's contribution to water quality is federal assistance.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0197.1.001.004

Author Name: Vickers Bradd

Organization: Chenango County Farm Bureau

Farmers throughout the watersheds would welcome the opportunity to do even more to protect water quality, they simply need more assistance to implement projects, not increased regulation and oversight proposed by the TMDL.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 regarding agricultural funding. EPA notes that a TMDL is not a Federal regulation.

Comment ID 0197.1.001.006

Author Name: Vickers Bradd

Organization: Chenango County Farm Bureau

If EPA were truly committed to improving the water quality of the Chesapeake Bay, rather than approach the issue by employing a TMDL that does not recognize the scope of the success of agriculture's efforts, it should advocate for a more constructive, stakeholder focused approach. Helping farmers implement BMPs through better targeting of the Section 319 funds and urging all stakeholders to support more implementation funds would significantly assist in practical water quality improvements.

Response

One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. This approach includes having the State develop a process to target funding and implementation.

Comment ID 0201.1.001.005

Author Name: Fawver Gary

Organization: Pennsylvania Department of Transportation

EPA will never achieve the desired load allocation in the Bay Watershed solely through regulated point sources. This is easier for EPA given the fact that they have some statutory jurisdiction over these sources. However, to achieve the TMDL by placing more responsibility on the point sources will essentially eliminate necessary activities. For example, the State DOTs are also in a funding crisis. In PA, in response to changes in the NPDES program and litigation, PADEP has over the years increased their BMP requirements for both E&S controls and post construction controls which have resulted in increased project costs. As a result, fewer projects are completed. These shelved projects are based on public health, safety, and welfare needs. If the Bay TMDL plan imposes even stricter controls, project costs will again increase and even fewer needed projects will be completed. The same can be said of waste water treatment plants. These plants serve a critical need regarding a basic human bodily function. Imposing greater controls could cause some of these plants to go into bankruptcy or will result in greater costs to the general public which will result in an impact to the economy because the general public will have less to spend. The same can be said regarding the regulation of industrial discharges.

The Bay TMDL needs to be grounded in reality and directly related to the activities contributing to sediment loads. According the Pennsylvania's draft Watershed Implementation Plan (PA WIP) for the Bay (page 13), agriculture contributes to 70% of the sediment load allocations. Forest and the associated timbering activities contribute to 19% of the sediment load allocations. Stormwater from urban and developed areas contribute 10 percent and point sources contribute 0.6% of the sediment load allocations. The PA WIP (page 10) defines point sources as including permits for MS4s and construction activities which are the activities relevant to PennDOT projects. Imposing greater controls on regulated point sources which are contributing 0.6 % of the sediment load allocation will result in significant costs to the regulated and general public without realizing any real benefit to the Bay.

Response

Please see the response to comment 0067.1.001.009.

Comment ID 0202.1.001.012

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

IV. FUNDING CONSIDERATIONS

Given that the Chesapeake Bay is recognized as a "national treasure", we believe that anything less than a federally administered and federally funded approach diminishes the federal government's ability to lead this effort, compromising the effectiveness of the initiative and risking its failure.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0202.1.001.016

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

We would like to emphasize that we believe New York State has been a good upstream neighbor to the Bay states. Furthermore, we continue to remain committed to protecting and improving our water quality. That is what we do as WWTP owners and managers. What we are asking of you, our elected federal representatives, is to;

- Ensure that appropriate grant funding for project costs, as well as increased O&M costs, are made available, If/when significant WWTP improvements are required in New York State.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources. For NY specific responses, please see the responses to comment 0080-cp.001.002 and 0267.1.001.006.

Comment ID 0211.1.001.016

Author Name: McCarthy R.

Organization: Town of Erwin, New York

in order to satisfy EPA's regulatory goals without confirmation of water quality improvement, the EPA has not ensured realistic delivery of needed funding and technical assistance and has not provided regulatory flexibility to allow for implementation of continually improving on-farm practices in response to site-specific environmental variables;

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0648-cp.001.002 discussing EPA's desire to credit all water quality improvements as they occur.

One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, which includes the need for technical assistance.

Comment ID 0249.1.001.003

Author Name: Mixell John

Organization: Fort Littleton Wastewater

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0252.1.001.007

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

that sources of funding assistance are available in part based on local and regional need.

The end result must be a fair assessment of the goals and costs assigned, and consideration of how unanticipated consequences can be avoided while making progress to help the Bay.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0252.1.001.012

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

The second specific comment is that funding sources are not well defined in the Phase I WIP from Maryland, and we note use of the verb 'may' as indicates uncertainty about where funds will emerge. A mandatory stormwater utility bill has been drafted by the Chesapeake Bay Foundation; however, it is not certain that revenue can be collected commensurate with what will be required, and the smaller jurisdictions will be challenged to raise significant revenue without very high household fees. Trading options are not well understood in our region. Federal funds are seen as available primarily to the State, with the prospect of staffing help for MDE to provide technical assistance and enforcement as a primary State goal; local projects may see little Federal assistance. State and Federal budgets are and will be constrained by budget deficits and the still struggling economy. The concern is that the local governments will be burdened with the cost of this mandate to a great extent, and we do not see evidence otherwise in Maryland's Phase I WIP.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0252.1.001.017

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

As a small municipality, Frostburg is concerned with the measure to mandate a 20% retrofit over 5 years (2012 - 2017).

The procedure and costs are not well understood at this time, but such a mandate could easily be a back breaker. In our region, the development community will not be in a position to fund these off site and unrelated development costs; therefore, we anticipate a mandate for local government capital investments at a rate of about 4% per year, with 18 months to gear up. While a stormwater utility could raise some funding, there are other needs for this revenue; we are beginning to develop a list and estimate of needs if the City will be responsible for efforts. Unless there is a major 'trading for cash' opportunity - also not well explained to date -or major sources of funding (outside of CSO funding that is critical to staying on our schedule), this will overwhelm our ability to pay.

The fifth and final specific comment is that the 20% retrofit mandate may not be fair to our small community unless specific funding is identified for local projects to supplement limited local revenue.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0256.1.001.008

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

Local governments throughout the Watershed are facing the same kind of hard budgetary choices caused by the current economic downturn. It is simply not realistic to expect that while local governments reduce services to their constituents, they then ask them to pay increased fees and taxes to pay for expensive retrofits. The political costs at the local level are real and could lead to a backlash against local officials who do support efforts to restore and protect the Chesapeake Bay.

That is why it is absolutely necessary for EPA and the states to address the issues of funding projects at the same time they are communicating the requirements of the Bay TMDL. LGAC has supported local government actions needed to clean up the Bay, but has always told the Chesapeake Executive Council that increased federal and state funding to local governments is crucial to meeting the clean up and restoration goals of the Bay Program. While there have been impressive requests to Congress for additional funding through EPA and the Farm Bill, those increases have not yet been fully approved. LGAC has and will continue to support increased federal and state funding that will be necessary to implement the TMDL.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0260.1.001.009

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

EPA recognizes the need for more federal financial assistance to all states and impacted entities to address their Bay reductions. EPA should recommend to Congress, in a delineated report, the amount of funding necessary to cover both financial and technical assistance to all impacted sectors. The Blue Ribbon Finance Panel, convened by the Commission in 2004, made numerous recommendations that have virtually been ignored over the years. It is imperative that this funding shortfall be addressed.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0263.1.001.006

Author Name: Foley Sharon

Organization: Harrisonburg-Rockingham Regional Sewer Authority (HRRSA)

In closing, HRRSA observes that among the Draft Bay TMDL's many serious deficiencies is the lack of acknowledgement or appreciation for the major financial commitments that have already been made by HRRSA and many other local governments based on Virginia's adoption and EPA's approval of the Virginia Regulations in 2005 and 2007. The decision by HRRSA and its member localities to enter into additional long term debt was made based on the state's pledge of 'regulatory stability' concerning the wasteload allocations set forth in the Watershed General Permit and the expectation that such regulatory stability would provide a foundation to responsibly plan for economic development and growth by our member localities.

Response

Thank you for your comments. EPA recognizes that there has been a significant financial commitment by all jurisdictions in efforts to reduce pollutant loadings to the Bay. Even with the significant efforts there still remains a need to do more to address pollutant impairments in local waterways and in the Chesapeake Bay itself. EPA will continue to work with jurisdictions to address water quality issues in the watershed.

Comment ID 0266.1.001.015

Author Name: Fagerstrom Angela

Organization: City of Binghamton, New York

without EPA ensuring realistic delivery of needed funding

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0267.1.001.013

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

To assist with decreasing loading and mitigating harsh economic consequences, the Clinic has actively worked with rural areas of New York to implement appropriate strategies. However, additional funding will be necessary for these programs to be successful.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0267.1.001.015

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

- Provide additional funding to New York through the Chesapeake Bay Implementation grants, Nonpoint Source Control grants, Section 106 grants for water pollution control programs, the Clean Water State Revolving Loan Fund, and the American Recovery and Reinvestment Act.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Federal funding levels are determined by Congress and are beyond the authority of EPA to revise or reallocate. The American Recovery and Reinvestment Act was a one time funding opportunity to stimulate the economy across the Nation.

Comment ID 0267.1.001.017

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

Important resources such as the New York State Agricultural Environmental Management Program (AEM) and the Upper Susquehanna Coalition [FN 6] (USC) have been successfully engaging in nutrient and sediment reduction efforts for many years. They are now poised for the work of implementing the Bay TMDL; we urge EPA to direct funding towards enhancing their capacity.

[FN 6] The USC is a bi-state network of 19 SWCDs with a mission to conserve soil and water resources in the headwaters of the Susquehanna River and Chesapeake Bay watersheds.

Response

EPA does not have a direct source of funding in which to allocate funds to any project. In addition EPA must follow the competitive process in accordance with the national program guidance. Information on these regulations can be found at Title 40 Code of Federal Regulations Section 30.43.

Comment ID 0267.1.001.021

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

We urge EPA to better recognize the contribution of AEM. EPA can do this by directing funding towards enhancing AEM capacity. The latter would be particularly helpful because there is currently no dedicated funding stream for agriculture in this watershed; AEM funds are usually obtained from competitive grants. In evaluating New York's WIP, EPA points out the need for information on how Chesapeake Bay Regulatory and Accountability Program (CBRAP) grants will be used towards enhancement of regulatory programs. We respond by noting that a major component of AEM is to assist farmers with CAFOs compliance,[FN 11] and the program's contribution to this type of regulatory enhancements should be recognized.

[FN 11] 11 See WIP I at 40.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the

individual jurisdictions Watershed Implementation Plan.

Comment ID 0267.1.001.023

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

EPA should work with the state to establish a dedicated funding source for AEM to help secure its capacity and long-term stability.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, this includes strategies to improve and enhance funding.

Comment ID 0272.2.001.004

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

We appreciate that EPA generally agrees with MAMWA's position on the critical issue of regulatory stability for POTWs relative to their recently-established WLAs:

...the large scale public investments (estimated at over \$4 billion) that are now being carried out throughout the watershed to upgrade and reduce nutrient discharges from point sources. A stable regulatory environment is a priority need for these facilities and a matter of fiduciary responsibility and public trust. Therefore, EPA considers requiring further point source upgrades to the limits of technology as an option of last resort and is avoidable if the Bay partners use our creative energies to deliver sufficient nonpoint pollutant reduction commitments. [FN10]

Despite MAMWA's support for this approach, we must note that funding has been and remains a critical issue for ENR upgrades. The State's Draft WIP recognizes this critical issue:

Upgrade of the major wastewater treatment plants is funded by Maryland's Bay Restoration Fund ["BRF"]. Full funding is available for implementation of the 2011 Milestone, but a funding gap is projected after 2012. Maryland's Bay Restoration Fund Advisory Committee has projected a deficit beginning in FY 2012 and has begun developing options to close this deficit. [FN11]

As the State considers how to address this funding shortfall, MAMWA urges the State to do so in a manner that fully

funds all of the 67 major ENR projects.

[FN10] Letter dated Sept. 11, 2008, from Donald S. Welsh, EPA Region III, to John Griffin, MDNR, Enclosure A at 4 (emphasis added).

[FN11] Draft WIP at 5-19.

Response

Thank you for your comments. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. EPA allowed jurisdictions the opportunity to develop a Watershed Implementation Plan that meets the TMDL allocations. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost. EPA appreciates your continued support to Maryland to assist in identifying the necessary funding needed to implement the TMDL.

Comment ID 0272.2.001.006

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

MAMWA opposes the concept of upgrading non-expanding, non-significant municipal WWTPs for two very practical reasons.

First, as noted above, the BRF is facing a massive shortfall beginning in 2012. Thus, the State lacks the funding for the State's share of ENR upgrades at the larger "significant" WWTPs, much less at the contemplated five minor plants, and in this respect the proposal is not viable.

Second, the State has not provided any evidence that these upgrades would be cost-effective as compared to other management options. As MAMWA noted in its December Comments, cost-effectiveness should be one of the guiding principles for developing the TMDL. This is equally true for the State's Draft WIP. The limited available funding for the Bay restoration should be invested wisely. The State appropriately excluded the non-significant WWTPs as non-significant, and that prior decision should be upheld in the TMDL and WIP. Instead, MAMWA encourages the State to consider other measures with lower costs and more ancillary environmental benefits [FN16]. Further, MAMWA recommends that any future consideration of ENR-level WLAs and/or upgrades for non-significant plants include an evaluation of comparative cost data of various nutrient control options and an environmental review. [FN17]

[FN16] Ancillary benefits include extra societal benefits associated with requiring certain source sectors to further reduce their discharges. Some actions-like planting cover crops-can provide reductions and additional positive environmental and aesthetic impacts. EPA and Maryland should select these types of clean-up actions over others because of their ancillary benefits.

[FN17] On a related matter, MAMWA believes that there is a typo in the Draft WIP with regard to how Maryland established allocations for all non-significant municipal WWTPs. Maryland has said that "Maryland has identified aggregate target loads of nutrients for two levels of "non-significant" municipal treatment plants: For the plants with design flows of 0.1-0.49 MGD, target loads were assigned based on projected 2020 discharge flows and effluent permit concentration limits of 8 mg/l TN and 2 mg/l TP. For plants with design flows less than 0.1 MGD, loads were set based on 2020 projected flows and no upgrades for nutrient reductions." Draft WIP at 8-9. As noted above, the current Tributary Strategy approach for minors is based upon concentrations of 18 and 3, with no requirement for upgrades until the plant expands. As MAMWA understands it, Maryland has appropriately allocated based upon the TS approach, but has incorrectly stated the concentrations in the Draft WIP. MAMWA asks that Maryland correct this typographical error before it finalizes its WIP.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Comment ID 0276.1.001.002

Author Name: Nale Regis

Organization: Hollidaysburg Sewer Authority, Hollidaysburg, Blair County, Pennsylvania

In light of the present economic uncertainties, the Authority considers it infeasible to construct and operate additional treatment facilities to achieve the "Backstop TMDL" limits proposed by the U.S. EPA unless grant funds are made available to cover the entire cost of such a project.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0277.1.001.002

Author Name: Shambaugh Brenda

Organization: PA Association of Conservation Districts (PACD)

Funding for conservation districts must be accompanied with cost share financial assistance to the agricultural community. Installing BMP's can be extremely expensive and significant cost share funds must be appropriated on the state and federal level to the agricultural community as they plan and install BMP's to reduce nutrient runoff.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Federal funding levels are determined by Congress and are beyond the authority of EPA to revise or reallocate.

Comment ID 0304.1.001.003

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

In conclusion, I wholeheartedly encourage restoration efforts of the Chesapeake Bay, but believe that unfunded mandates to force pollution reductions on communities that likely can't comply are entirely the wrong approach. By contrast, I strongly support more of an incentive-based approach to restoring the Chesapeake Bay. This is why I am an original cosponsor of Congressman Tim Holden's H.R. 5509, which creates such incentives for pollution reduction and offers rural Pennsylvania opportunities. Farm communities will play a major role in cleaning up the Bay, but it is vital that we provide these areas with the appropriate means to help reduce levels of pollutants, rather than hastily subjecting them to unrealistic goals.

Response

EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards and directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024.

Comment ID 0304.1.001.016

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

With all this being said and if the mandates move forward then funding should be made available to all the sewer authorities and municipalities involved.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0314.001.009

Author Name: Santulli Thomas

Organization: Southern Tier Central Regional Planning and Development Board (STCRPDB)

In addition, implementation funding is needed, particularly in states that will not receive economic benefits from Chesapeake Bay restoration.

Response

Please see the responses to comment 0038.1.001.024, comment 0139.1.001.006 and comment 0501.1.001.005.

Comment ID 0321.1.001.001

Author Name: Fanfoni Kenneth

Organization: Augusta County Service Authority, Verona, Virginia

The Augusta County Service Authority owns and operates nine municipal wastewater treatment plants ("WWTPs") that clean and discharge highly-treated wastewater within the Chesapeake Bay watershed pursuant to a state-issued National Pollutant Discharge Elimination System ("NPDES") permit.

We expect to do our part for the Bay restoration. In fact, three of our WWTP's have been upgraded with enhanced nutrient removal technology at a cost of \$65,000,000. For a small utility, this is a tremendous debt on our customers. Rates have been incrementally increasing since 2003 in anticipation of the needed improvements. Since 2003 and through 2012, the total sewer bills have increased 108%. Our future O&M costs are also going to increase significantly in order to operate these newly upgraded facilities. The projected electric cost increase is 6.4%, while the alum cost increase is 123%. Carbon addition will be another major expense in order to achieve the low Total Nitrogen values.

The increased usage of chemicals and energy supports VAMWA's points regarding environmental tradeoffs. The

proposed TMDL does not consider cost-effectiveness, sustainability, or overall environmental benefit. By increasing stormwater and agricultural BMPs, capital costs and operation and maintenance (O&M) costs could be reduced as well as reducing green house gas emissions.

Response

Please see the response to comment 0501.1.001.005 addressing municipal point sources and the response to comment 0139.1.001.017 regardless consideration of cost-effectiveness.

Comment ID 0329.1.001.002

Author Name: Harrington Marilou

Organization: Town of Caroline, New York

Whereas, clean water and healthy watersheds are a priority for the Town of Caroline, which plays a critical role in proven and successful local efforts to conserve and protect New York's natural resources; and

Whereas, the U.S. Environmental Protection Agency Region 3 is implementing a Chesapeake Bay TMDL which imposes new and costly federal regulations on approximately 19 counties, 650,000 residents and 2,000 New York family farms within the NY portion of the Chesapeake Bay watershed area; and

Response

A TMDL is not a federal regulation. Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Since the comment is a statement rather than a question, our response is limited.

Comment ID 0329.1.001.005

Author Name: Harrington Marilou

Organization: Town of Caroline, New York

Whereas, the federally-designed TMDL, intended to limit nitrogen, phosphorous and sediment discharges into the Chesapeake Bay watershed, is going to use New York State public funds without being able to satisfy EPA's regulatory goal; and

Response

A TMDL is not a federal regulation. EPA reminds the commenter that we are under legal obligation to establish a TMDL that

meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. It is EPA's preference that each jurisdiction develops a Watershed Implementation Plan that meets the TMDL load allocations in a manner that best meets the needs of the jurisdiction both environmentally and economically. The states are responsible for allocating the tributary loads to the source sectors within their jurisdiction as part of the jurisdictions' Watershed Implementation Plan that will be used to inform the TMDL. A jurisdiction may choose to take action towards individual or more general sectors in achieving load reductions. Each jurisdiction has a unique set of practices they intend to use to meet water quality standards. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0334.1.001.006

Author Name: Troutman John

Organization: Buchart Horn, Inc.

EPA considers Pennsylvania's funding initiatives inadequate. Pennsylvania government is in transition but recommendations for additional state funding have and will be pursued and dedicated to the Bay program. EPA needs to recognize the need for more federal financial assistance and portions dedicated to Chesapeake Bay nutrient reductions. A clean water needs survey developed every 4 years has been virtually ignored during budget discussions with the executive and legislated branches of the federal government for the last 16 years.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0334.1.001.009

Author Name: Troutman John

Organization: Buchart Horn, Inc.

EPA considers PA's goals for new technologies for non point source reductions to be excessive and unrealistic prior to PA's attempt to implement its program. EPA should provide federal level assistance to secure technical experts in the development of new technologies providing nutrient reductions. As PA has initiated pilot programs in Lancaster and Bradford Counties on local involvement of nutrient reduction possibilities and responsibilities, EPA needs to facilitate efforts in joint programs with other federal agencies such as the Department of Agriculture, Department of Energy, USGS, and Department of Interior to promote innovative technologies capable of significant nutrient reductions. The NRCS branch of the Department of Agriculture can also provide technical service providers to assist in reductions.

Response

EPA has been working with PA as they finalized their Phase I Watershed Implementation Plan. One of the topics has been how to best address the new technologies. EPA and PA Department of Environmental Protection have agreed to work together over the course of the next year to refine how to address the new technologies that are a part of PA's plan. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, this includes technical assistance.

Comment ID 0342.1.001.004

Author Name: Levine Thomas

Organization: Moshannon Valley Joint Sewer Authority

At the public hearing on October 19, 2010, we heard that the federal government has set aside approximately \$20 billion annually for agricultural projects to reduce the nutrient load on the Chesapeake Bay. There was no mention of any funding for point sources such as the Authority. We strongly recommend that federal funding be appropriated for point sources (i.e., the Authority).

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0342.1.001.006

Author Name: Levine Thomas

Organization: Moshannon Valley Joint Sewer Authority

The Authority is deeply concerned that the population within their service area cannot financially sustain the costs associated with their current biological nutrient removal project. There is no possible way for the service area to afford any additional treatment improvements or credit purchases being discussed as part of the draft Chesapeake Bay TMDL.

The biological nutrient removal requirements of the Chesapeake Bay have squeezed the Authority for all that it has and then some. The Environmental Protection Agency needs to look nationally for the financial resources necessary to implement this "Draft" Chesapeake Bay TMDL if there is any chance for success.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0359.1.001.004

Author Name: Candland Matthew

Organization: Carroll County Water Resources Coordination Council (WRCC), Carroll County, Maryland

Even if there is some promise of federal and/or state aid, the State Legislature has a long history of raiding supposedly dedicated local revenues in difficult budget times (like they have with Highway User Revenues.) We are concerned that the draft regulations will create tangible mandates with only the mere promise of funding. And even if some level of funding is provided, we fear that it will be subject to routine expropriation by the Legislature.

Response

A TMDL is not a federal mandate. For information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

EPA cannot speak to future funding levels or potential budget changes or cuts that may occur.

Comment ID 0367-cp.001.003

Author Name: Forget Karen

Organization: Lynnhaven River NOW

Meeting the levels of the TMDL will put huge demands on city and counties to meet the new standards. The burden of some of this will necessarily need to be borne by the localities. Nevertheless, the EPA and the Commonwealth of Virginia have a responsibility to provide mechanisms to assist localities with these efforts.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0368-cp.001.003

Author Name: Myers Kenneth

Organization: Borough of Huntingdon

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0390-cp.001.003

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

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provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0405.001.003

Author Name: Lagowski Paul

Organization: BAE Systems

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0410.1.001.018

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Although the need to reduce the impacts of these materials is recognized, SHA requests that EPA consider funding mechanisms to offset the cost of mitigating atmospheric contaminants derived from sources outside the watershed.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0411.1.001.005

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

4. The significant wastewater facilities identified in the plan are spending hundreds of millions to retrofit for nutrient reductions. The UOSA regional wastewater plant has some of the most expensive rates in the State because it outfalls to water supply. The State should step up with Water Quality Improvement funds (WQIF) to assist with the implementation of nutrient reduction initiatives at point sources and the federal government should also provide funding.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources.

Comment ID 0412.1.001.007

Author Name: Lohr Matthew

Organization: Virginia Dept. of Agriculture and Consumer Services

VDACS believes that the Commonwealth currently has the necessary existing regulations and water quality programs, as well as the desire by the farming community to implement the necessary best management practices. However, VDACS acknowledges that the Commonwealth greatly lacks the necessary funding for those practices, and the technical staffing resources needed to implement them. Finding ways to assure that adequate funding is available to implement the necessary best management practices is becoming increasingly difficult in the current economic climate.

Response

EPA hears the concerns of the commenter and refers to the response to comment 0139.1.001.006 regarding agricultural funding.

Comment ID 0414.1.001.014

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Funding is Not Addressed

There is not sufficient funding to implement the TMDL. In the point source segment this is also true especially in light of the previous studies on the unsustainable nature of Pennsylvania's wastewater infrastructure. Given that most of the benefit of Pennsylvania's efforts will be seen in other states, additional sources of monies should be provided by other than Pennsylvania residents. DEP does not sufficiently report in the WIP on the costs of compliance nor does it make the point that the WIP cannot be implemented without huge amounts of additional funding.

1. Will the Federal government contribute the billions of dollars required for compliance?
2. Will Pennsylvania face difficulty in competing in the world economy as a result of the TMDL?

Response

EPA hears the concerns of the commenter. Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Please see response to comment 0228.1.001.002 regarding analysis of the watershed implementation plan

Comment ID 0431.1.001.005

Author Name: Tolbert James

Organization: City of Charlottesville, Virginia

While the details have not been determined, it seems very likely that much of the Bay TMDL and Virginia WIP will be implemented through the next generation of MS4 permits. Local governments do not have the funding to carry the financial burden of such an aggressive program. We agree that the Bay is truly a national treasure. Federal funding should be used to help localities comply with the Bay TMDL.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to 139.1.001.006 outlining assistance to the agricultural community.

Comment ID 0440.1.001.003

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

- Agriculture: Consistent with a position in VACo's legislative program, the comments support long-term funding for agricultural Best Management Practices cost-share programs .

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to 139.1.001.006 which discusses agricultural funding.

Comment ID 0440.1.001.009

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

3.) Impacts upon agriculture

Agriculture serves as the economic base for many of Virginia's counties. For economic, environmental and other reasons, Virginia's county officials have a major interest in protecting the agricultural character of their communities. Regulatory approaches that excessively burden the farming community will threaten the long-term viability of agriculture as a major industry in Virginia. This is especially true if regulations become such a serious cost driver that farm owners will decide to convert their lands to more intensive uses, a phenomenon that introduces an entirely new set of future environmental problems. According to Section 4.7 of the Draft Chesapeake Bay TMDL, agricultural lands account for 22 percent of the watershed. Many county officials have interest in preventing a reduction in this percentage.

VACo is mindful of the fact that the most cost-effective actions for reducing non point source pollutant loadings are through agricultural Best Management Practices. Many farmers are interested in participating in cost-share programs, however funding, whether from state or federal sources have often been sporadic and unpredictable. Several years ago Virginia's General Assembly created the Natural Resources Commitment Fund, which assures that at least some percentage of Virginia's Water Quality Improvement Fund will be allocated to agricultural cost-share programs. Unfortunately, farmers may decline to participate in these programs if the availability of these funds varies with changing economic conditions.

Page 7-3 of the DRAFT TMDL provides some discussion of the role that federal funds (through the Farm Bill and other sources) can play in assisting farmers. However, the commitment in the narrative to sustained federal funding is weak, vague and provides little assurance of funding on a long-term basis needed to encourage more participation among farmers. Since Virginia's DRAFT WIP requires a 95 percent participation rate by the agriculture sector in order for its pollutant reduction goal to be met, adequate funding for the agriculture BMP cost-share program is critical. Also critical, is the inclusion of information about practices that have already been employed by farmers throughout the Chesapeake Bay watershed on a voluntary basis.

In 2009, DCR conducted a Natural Resources Commitment Fund Needs Analysis and concluded that a total of \$618.1 million would be needed over the next fifteen years (2011-2025) to financially support the cost share program at a level sufficient to achieve 60 percent of the non-point source pollution reduction goals for agriculture.

Below is the table provided in the 2009 Natural Resources Commitment Fund Needs Analysis (written by DCR and legislature in October 2009). Dollar figures are in millions.

[Table: Please see page 10 of original letter (Docket ID # 0736-0440.1)]

Recommendation: VACo supports well-financed state and federal programs to address the problem of non-point source runoff from agricultural operations that would effectively encourage implementation of priority best management practices such as nutrient management planning, use of cover crops, continuous no-till farming, development of

forested riparian buffers, and livestock stream exclusion. In this area, more financial assistance from the federal government is needed to encourage sustained participation in agricultural BMP cost-share programs. A system should be developed that takes an inventory, and grants credits for, agricultural best management practices undertaken on a voluntary basis over the past few years.

Response

Thank you for your comments. In establishing the TMDL EPA is required to establish the loading reductions necessary to meet water quality standards given reasonable assurance, though establishing the funding or sources of funding necessary for implementation is beyond the scope of the TMDL. For information on the rationale behind WIP backstops please see the response to comment 0067.1.001.010. Please also see the response to comment 0139.1.001.006 outlining agricultural funding efforts to the Bay.

Comment ID 0442.1.001.003

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

2. EPA and States Must Enhance/Expand Funding

Existing funding mechanisms are insufficient to meet the proposed project implementation schedules in some jurisdictions, and the time required to augment funding may result in implementation delays. Federal and State leadership to assure funding support for locally based watershed implementation plans is necessary to meet the ambitious timelines currently proposed for Bay and tidal tributary restoration.

In particular, in most COG local jurisdictions, existing funding mechanisms are insufficient to meet the TMDL/WIP assumption that 60/70 percent of progress toward final allocations will occur by 2017 or that 100 percent of all necessary implementation will occur by 2025. The funding shortfall is exacerbated by the current economic downturn. According to both the National League of Cities and the National Association of Counties, their member governments continue to reduce their budgets from 2009-2010 levels.

More specifically, Maryland WIP proposals to achieve either a 30- 40- or 50-percent retrofit of existing older developed areas in Phase I MS4 communities by 2017 (See Section 5.2.2 of Maryland WIP document) and EPA's backstop proposal to achieve 50 percent retrofit by 2017 for all older urban lands in the Bay watershed portion of Virginia (ref. Section 8. WIP Evaluation & Draft Backstop Allocations, pp. 8-13 through 8-14) cannot be achieved in these time frames without substantial federal and/or state funding assistance.

Example: Various parties have recently tried to estimate the costs of stormwater retrofitting. These estimates are subject to a great deal of variability because there is to date insufficient experience with actual retrofit projects in the region and because there is not a clear-cut definition of what is meant by the term. For COG's Maryland and Virginia members, staff estimated the total amount of pre-1985 urban pervious and impervious acres using Version 5.2 of the watershed model. Using a fairly conservative average cost of \$88,000/acre from the Center for Watershed Protection,

staff estimated the cost of retrofitting 50 percent of this acreage at \$5.45 billion in initial capital costs. This estimate did not take account of the annual operations and maintenance costs for new facilities nor for the cost of acquiring land, since retrofitting at this extensive level cannot be accomplished strictly with projects on public land. Nor does it account for whatever retrofit requirements may be imposed on pervious land.

Recommendation #2: Provide Stormwater Funding Support

Both the wastewater and agricultural sectors have received and continue to receive significant federal and/or state support for implementation. Urban stormwater, by contrast, has received little such funding. We recommend that the proposed urban stormwater cost analysis be matched with a concrete proposal for federal and state support for retrofitting stormwater controls. One possibility is to resurrect the proposal for a federal-state financing authority for the Bay that was originally advanced by the Chesapeake Bay Blue Ribbon Financing Panel in 2004 and that would be capitalized by \$15 billion in federal and state matching funds. If such support is not forthcoming, and no changes are allowed to be made to the current deadlines, it is likely that we will subsequently recommend initiation of a Use Attainability Analysis, based on the questionable feasibility, economic and otherwise, of urban stormwater retrofitting.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0445.1.001.001

Author Name: Lerch Joe

Organization: Virginia Municipal League (VML)

State and local governments are faced with a difficult task in meeting the new legal deadline for cleaning up the Chesapeake Bay. VML is committed in partnering with Virginia and the EPA to meet this deadline. However, our member governments - at this time - simply do not have the financial resources to implement the measures currently prescribed in Phase I of the draft TMDL.

VML in partnership with the Virginia Association of Counties (VACo) performed a 2010 fiscal survey of 37 cities and 90 counties (see attached PowerPoint slides entitled 2010 Local Government Fiscal Survey Results, September 2010) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0445.1]. The results of the survey show a decline in local general fund revenues that have already resulted in a delay or cancellation of capital projects, along with severe cuts in personnel. Additionally, the Virginia Employment Commission (VEC) reports that Virginia local governments in FY 2010 (June 2009 to June 2010) shed more than 15,000 jobs. It is worth noting that during this same time period the federal government added more than 14,000 new jobs in Virginia. With local budget shortfalls, limited revenue generation capability, and evaporating debt service capacity, local governments require the necessary federal and state appropriations to meet the pollution load allocation as prescribed in the draft TMDL. As reflected in our recently adopted 2011 legislative statement on water quality funding, VML ... urges the federal government and the Commonwealth to provide adequate funding for these water quality improvements.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 addressing public sector point sources.

Comment ID 0452-cp.001.003

Author Name: Atkinson Dick

Organization: Virginia Soybean Association

Producers do not have an abundance of funds as farming has been extremely difficult of late (droughts/hurricanes/too much rain) all lead to crop failures. Cost share (from both the State and Federal Government) is essential to BMP work to continue, so we must see this partnership continued and frankly ramped up!

Response

For information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration and the response to comment 0139.1.001.006 addressing agriculture.

Comment ID 0463.1.001.008

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

7. Urban Nutrient Management

State authority and model ordinances will be required to implement elements of this program on private lands to regulate private applicators, landscape contractors, and property management maintenance crews. In order to have consistency across municipalities, the state should provide the requisite administrative resources to effectively support and fund the program at the local level where it will be most effective. Without adequate state or federal funding, the locality should not be required to administer the program.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0466.1.001.010

Author Name: Suarez Julie

Organization: New York Farm Bureau (NYFB)

Substantial Federal Funding Needed for Compliance New York's farm families need more than cost share support from EPA's TMDL implementation efforts. Forecasted federal funding is inadequate when compared with the total potential cost of \$350 million for TMDL compliance for New York agriculture with no availability from the State to close funding gaps. In 2011, \$150 million in 2008 Farm Bill funding has been dedicated for Chesapeake Bay restoration efforts for cost share projects - which means \$150 million must materialize from farms and other source sectors in order to secure such federal funding. Especially in the current economy, the farm community cannot absorb additional regulatory costs which do not contribute to sustainability or profitability.

The most important priority in any TMDL effort is increasing resources available to the farm community. This includes funding for on-farm BMP implementation, strengthening of local technical resources, such as local soil & water conservation districts, and increased applied research funding.

Every year New York farmers request significantly more funds to install BMPs within the Upper Susquehanna Watershed than are made available. During the past round of funding from federal and state sources the total amount of oversubscription exceeded \$8 million. Farms want to do more to protect water quality, but they need help, particularly from those entities gaining economic and social advantages from a cleaner Chesapeake Bay to accomplish these goals.

What is absolutely critical to ensuring water quality improvement is that farms have access to the technical resources necessary to adopt and implement the latest in water quality protection management practices. In New York, local soil & water districts within the Upper Susquehanna provide these valuable resources. Additional support is needed to support the work of these dedicated entities.

Response

Please see the response to comment 0080-cp.001.002 addressing equity and New York and the response to comment 267.1.001.006 which describes the how the pollutant loads from New York contribute to the downstream impairment.

Comment ID 0467.1.001.020

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

VIII. Funding is Not Addressed

A. There is not sufficient funding to implement the TMDL. In the point source segment this is also true especially in light of the previous studies on the unsustainable nature of Pennsylvania's wastewater infrastructure. Given that most of the

benefit of Pennsylvania's efforts will be seen in other states, additional sources of monies should be provided by entities other than Pennsylvania residents. The Department does not sufficiently report in the WIP on the costs of compliance nor does it make the point that the WIP cannot be implemented without huge amounts of additional funding.

Response

It is true that EPA will not be identifying the cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. For an outline of the Federal effort to the Bay, please see the response to comment 0038.1.001.024. Please see the response to comment 0501.1.001.005 for a discussion of public sector point sources. Please see the response to comment 0568.1.001.007 for a discussion of upstate loads contributing to downstream impairments.

Comment ID 0467.1.001.021

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

B. Did EPA consider the legal requirements imposed on local governments, including municipal authorities (e.g., bidding, procurement), in structuring its proposed backstop allocation approach? EPA apparently does not appreciate the economic realities of local government, which generally cannot plan for expensive upgrades short-term but, in many instances, must secure funding from outside sources.

C. Will the Federal government contribute the billions of dollars required for compliance with the TMDL?

Response

Please see the response to comment 0501.1.001.005 for a discussion of public sector point sources. Also, please see the response to comment 0038.1.001.024 outlining the federal effort to the Bay. However, EPA reminds the commenter that securing or identifying the funding sources needed to implement the TMDL is beyond the scope of the TMDL.

Comment ID 0467.1.001.032

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 47 Laws, Regulations, Funding

There is not sufficient funding to implement the WIP. In the point source sector, this is also true especially in light of the previous studies on the unsustainable nature of Pennsylvania's wastewater infrastructure. Given that most of the benefit

of Pennsylvania's efforts will be seen in other states, additional sources of monies should be provided by entities other than Pennsylvania residents. DEP does not sufficiently report in the WIP on the costs of compliance nor does it make the point that the WIP cannot be implemented without huge amounts of additional funding.

Response

For discussion of public sector point sources, please see the response to comment 0501.1.001.005. Please see the response to comment 0568.1.001.007 for a discussion of upstate loads contributing to downstream impairments.

Comment ID 0467.1.001.038

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 79 Laws

It is noted that Act 167 has lost its funding and that implementation of the stormwater management plans already written by local municipalities is unlikely. Should funding be made available to municipalities for implementation of plan recommendations, then funding should also be made available to communities served by CSO systems recognizing that the implementation of Long Term Control Plan's will in many cases achieve more to reduce nutrients and sediment than implementation of many of the Act 167 recommendations.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0468.1.001.003

Author Name: Harry Jennifer

Organization: PennAg Industries Association

2. Chesapeake Bay Restoration will not occur without a strong financial commitment at both the State and Federal level. Several years ago, the Tributary Strategy identified the need for \$215 million annually. Pennsylvania has faced budget cuts in many sectors. Pennsylvania Legislators will be encouraged to establish dedicated funding to the Commonwealth's restoration efforts, possible portal of funds could be from Marcellus Shale; Gaming Revenue and/or

enhancing the REAP Tax Credit Program to capture Bay restoration projects. The funding is needed for projects, education and outreach, staffing, inspections and enforcement actions.

Response

Please see the response to comment 0038.1.001.024 outlining the Federal effort towards the Bay and the response to comment 0139.1.001.006 for information on agriculture funding. As the comment pertains to Pennsylvania and funding, please see the response to comment 0034-cp.001.001.

Comment ID 0473.1.001.008

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

- The primary method of the Commonwealth's efforts to provide reasonable assurances is the continued call for a technology project fund of \$100 million annually that would place innovative projects such as manure to energy digesters on the ground. This project would be funded by the Chesapeake Bay states and the federal government and will provide the necessary assurance that the reductions necessary will be made. Efforts such as this were not adequately considered in the draft TMDL.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0476.1.001.003

Author Name: Farasy Thomas

Organization: Maryland State Builders Association (MSBA)

3. No revenues have been identified to undertake these massive obligations. This is particularly crucial in our current state of the economy, the massive unemployment and related state and local government fiscal constraints.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0480.1.001.004

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

The Federal Commitment to Restoration of the Chesapeake Bay

Congress and the Administration have increased commitments of financial and agency support for restoration and protection of the Chesapeake Bay watershed since the 1980s. There has been a considerable amount of federal support to states, local governments, farmers and others to implement on-the-ground practices that will be needed to succeed. This funding support has been increasing over the years as the TMDL has gotten closer.

EPA has also provided implementation funds, \$100,000 annually beginning in Fiscal Year 2002, to the three Headwater states of Delaware, New York and West Virginia after they signed the Water Quality MOU. That has incrementally increased to \$500,000 this year. In Fiscal Year 2005 EPA began a new annual grants program for implementation activities in the Chesapeake Bay watershed, primarily targeting nutrient and sediment reduction. The program was funded at \$7.8 million the first year and the amount has fluctuated in the years since. EPA has also been providing additional funds to all of the states to hire or retain staff in regulatory programs in order to help develop and implement the TMDL and the state WIPs. New Chesapeake Bay watershed-specific grant programs have been developed over the past decade by the National Oceanic and Atmospheric Administration and USDA's Natural Resources Conservation Service (NRCS). In the 2008 Farm Bill, Congress allocated \$188 million over six years in mandatory spending for agricultural conservation practices on farms in the Chesapeake Bay watershed portion of the six states. This is a critical source of substantial funding for farmers to implement practices to support efforts to meet the requirements of the TMDL and their state WIPs.

In May 2009, President Obama issued Executive Order 13508 "Chesapeake Bay Protection and Restoration," which aligned the Federal government with efforts necessary to restore the Bay's water quality and other restoration and protection goals. This historic effort will ensure unprecedented Federal support for efforts to restore the Bay and to meet the TMDL. In September 2009, USDA Secretary Vilsack announced that there would be \$638 million over five years from various USDA programs devoted to Chesapeake Bay restoration activities - though this is not all directly for water quality. EPA's Chesapeake Bay Program budget increased from \$31 million in FY 2009 to \$50 million in FY 2010, and the President proposed \$63 million for FY 2011 - all unprecedented amounts. EPA's Clean Water State Revolving Fund (SRF), a national program with a set formula for dissemination of money to the states, went from \$689 million in FY 2009 to \$2.1 billion in FY 2010 and the President's FY 2011 budget request is \$2.0 billion.

As part of the President's Executive Order, on September 30, 2010 the Obama Administration recently announced that it is providing a substantial amount of funding support from more than a dozen Federal agencies - proposing over \$490 million in funding support for Chesapeake Bay in Fiscal Year 2011, which has just begun. Some funding highlights from this effort to target water quality specifically in the Chesapeake Bay watershed include EPA programs, such as the Clean Water SRF (\$169.51 million); Section 319 non-point source grants to the states (\$10.37 million); \$5.89 million in Section 106 Water Pollution Control grants to the Bay states; and \$4.7 million to support state tidal monitoring programs. NRCS is targeting \$72 million in financial and technical assistance to help farmers in high-priority

watersheds. In addition, through the newly established Chesapeake Bay Regulatory and Accountability Program and State Implementation Grants, EPA will provide more than \$20 million directly to the Bay states to help them develop and implement the Chesapeake Bay TMDL and the state WIPs.

Response

EPA notes the comments and agrees that a substantial amount of funding is being provided in support of efforts within the Chesapeake Bay watershed.

Comment ID 0512.1.001.006

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

A certified BMP will result in the removal of nitrogen, phosphorus, and/or sediment from the County's waterways and ultimately the Chesapeake Bay. The non-point sources can use assistance in understanding the types of BMPs that are available as well as implementing the BMPs. The County recommends that the EPA and PA DEP work more closely together to provide outreach and technical assistance to the non-point sources in order to develop a more realistic means of obtaining improvements from them.

The BMPs are sometimes expensive for a land-owner to implement on their property. Therefore, the County would recommend that EPA and PA DEP invest more funding into programs that will allow our non-point sources to develop and implement BMPs and thus reducing these pollutants in the Chesapeake Bay. An excellent example of a successful program that should be fully funded is CREP.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, including potential funding sources.

Comment ID 0515.1.001.018

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

H. From a Policy Standpoint, the EPA Must Ensure Adequate Resources to Carry-Out the TMDL and WIPs

If the Bay is to be given proper attention and care as a "national treasure", then identification of adequate federal funding must be an integral part of the TMDL. Overwhelming costs will be required to restore and protect the Bay in a way befitting its declared "national treasure" status. The NYS-DEC estimates that implementation of the TMDL could cost in the range of \$2 - 6 billion within New York State alone, yet the State of New York is in a fiscal crisis and is cutting back spending throughout all state government agencies. The Bay watershed is a very small portion (13%) of New York's total land mass. We do not expect, and we do not believe that the federal government can realistically expect, that New York State and local governments can devote the resources necessary to effective TMDL implementation, administration, and/or enforcement without substantial new federal funding provided for this purpose.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0515.1.001.023

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

C. Provide Adequate Federal Funding and Assistance.

Meeting the objectives of President Obama's declaration that the Bay constitutes a "national treasure" is a federal obligation. Accordingly, the federal government must lead this effort and demonstrate its commitment by providing adequate funding and assistance to the states and localities required to participate directly in the clean-up and restoration efforts. Provisions for adequate federal funding must be built-into the TMDL. Instead, as written, the draft TMDL would require the taxpayers and ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for Bay watershed restoration through the EPA's emphasis on exercising control via the permitting process for point-source dischargers without building-in provisions for adequate federal funding and assistance.

In an effort to identify the financial resources essential for cleaning up the Bay, in December 2003 the Chesapeake Executive Council called for the creation of a "Blue Ribbon Finance Panel" to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and extensive would be required. The Blue Ribbon Finance Panel proposed that the Bay watershed jurisdictions create a "Chesapeake Bay Financing Authority", capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the federal government should provide \$12 billion and the seven Bay jurisdictions together should contribute \$3 billion (in "2005 dollars"). Because of the interstate nature of such an entity, only the federal government could provide it a charter.

Other important federal assistance for carrying-out the TMDL should include:

1. Army Corps of Engineers - maintain/dredge-out dams and "deltas" along the Bay watershed tributaries on a routine basis; doing so maintains/maximizes "trapping capacity" of dams and minimizes resuspension of sediments and

bound pollutants, especially in ice jam and major storm events.

2. USDA - provide increased financial and technical assistance to Soil & Water Conservation Districts and farms.

3. Department of Housing and Urban Development - provide direct grants (akin to Community Development Block Grants) to local governments in the Bay watershed for stormwater control, management, storage/infiltration, and/or treatment programs as well as "smart growth" and "smart development" planning practices.

4. EPA and Department of Energy R&D Funding - the federal government must take the lead in sponsoring R&D programs to drive advances in technologies and practices (present and future) so as to promote the best environmental quality of the Bay (and beyond), including:

a. for WWTPs - process improvements for enhanced nutrient removal (even to the extent of developing "standard designs" with documented "real world" performance capabilities) and pilot programs (similar to those funded and carried-out through the National Research Council of Canada),

b. sustainable technologies of general application (such as "air flush" toilets and self-composting toilets) as well as commercially-viable technologies (see G.2, below), and

c. stormwater and greywater management, storage, and reuse practices.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions.

Federal funding levels are determined by Congress and are beyond the authority of EPA to revise or reallocate. EPA does not have a direct source of funding in which to allocate funds to any project. In addition EPA must follow the competitive process in accordance with the national program guidance. Information on these regulations can be found at Title 40 Code of Federal Regulations Section 30.43.

Comment ID 0515.1.001.031

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Because no TMDL is self-implementing, the EPA must continue to work with the President and Congress in order that adequate federal funding will be afforded those Bay jurisdictions, local governments, and agencies which will carry-out the implementation plans after the TMDL is finalized. Finally, in order to promote compliance and accountability, the

EPA should also consider targeting some available federal funding so as to be conditioned on the progress achieved as well as establishing a clearly-defined system/menu of consequences to penalize failure to achieve required WQ standards or milestones.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, including funding sources.

Federal funding levels are determined by Congress and are beyond the authority of EPA to revise or reallocate. EPA does not have a direct source of funding in which to allocate funds to any project. In addition EPA must follow the competitive process in accordance with the national program guidance. Information on these regulations can be found at Title 40 Code of Federal Regulations Section 30.43.

Comment ID 0519.1.001.006

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Expanded Funding Requirements

Existing local government funding mechanisms are insufficient to meet the TMDL/WIP assumption that 70 percent of progress towards the final allocations will occur by the year 2017, and the time required to augment existing funding will likely result in implementation delays. Federal and State leadership is required to assure funding support for locally based watershed implementation plans is available to meet the ambitious timelines currently proposed for the Bay and tidal tributary restorations. Historically, both the wastewater and agricultural sectors have received, and continue to receive, significant federal and/or state funding support for implementation in the form of cost-share or outright grants. By contrast, the Urban stormwater sector has received virtually no such funding. The Northern Virginia Regional Commission staff recommends that the proposed cost analysis describe above be coupled with a funding proposal for federal and state support for retrofitting stormwater controls.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 501.1.001.005 for discussion of public sector point sources.

Comment ID 0536.1.001.004

Author Name: Belin Hedrick

Organization: Potomac Conservancy

Agricultural runoff is a significant pollution source that has shown some improvement, but still has far to go. Sustained progress will require a balance of regulation and inducements, including cost-share assistance from both federal and state levels. EPA must marshal backing from its sister federal agency, the Natural Resources Conservation Service, to help in this regard. And states must be persuaded to match that support for their own agricultural sectors.

Response

Please see the response to comment 0139.1.001.006.

Comment ID 0541.1.001.003

Author Name: Knapp Leslie

Organization: Maryland Association of Counties (MACo)

Federal Funding Needed for County Governments: The estimated costs of implementing the TMDL requirements and achieving the target loads are enormous. In Maryland, costs for potential stormwater retrofits alone could run in the billions. Even in prosperous times that figure would be daunting, but when the State's local aid has been significantly reduced and counties are still feeling the effects of the recession, it becomes unattainable. Some counties anticipate having to double their planning staff. There is no way certain counties could raise taxes or fees to a level that would cover their anticipated TMDL costs. With federal legislation like Senator Cardin's S. 1816 and its House counterpart H.R. 3852 moving slowly or stalled, counties need some assurance from EPA that federal funds will be forthcoming.

Technical Assistance Needed for County Governments: In addition to the significant cost burdens imposed by the TMDL on local governments, there is also a need for technical assistance. Local governments, and in many instances the State, lack the scientific expertise necessary to fully comprehend the impacts of the many nutrient reduction strategies that will be proposed and implemented. Counties expect the private sector and even some in the public sector to propose many new and innovative strategies for achieving the TMDL goals and they need help to analyze the effectiveness of these strategies and develop adequate tracking systems.

Response

Although funding is very relevant to the implementation of the TMDL, it is beyond the scope of the TMDL. In establishing the TMDL, EPA is required to allocate loadings of the pollutants of concern to all the sources in the watershed such that water quality standards are achieved. Please see the response to comment 0038.1.001.024 outlining the Federal effort for the Bay and the

response to comment 0501.1.001.005 for discussion of public sector point sources.

Comment ID 0553.1.001.004

Author Name: Uzupis John

Organization: Synagro Technologies, Inc.

- Congress should support and fund effective and positive efforts (like conservation practices assisted by programs like the USDA's Natural Resources Conservation Service -- NRCS) to help farmers meet additional nutrient and sediment reduction goals.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0568.1.001.006

Author Name: Eisel James

Organization: Delaware County, New York

Financial burden

NYC provides a significant amount of funding for compliance with its watershed rules and regulations through the Delaware County Soil and Water Conservation District (DCSWCD), the Catskill Watershed Corporation (CWC) and the Watershed Agricultural Program (WAP). Funding sources include the Delaware County Stream Corridor Management Program and the Catskill Streams Buffer Initiative out of DCSWCD, which work with landowners and municipalities to fund a wide variety of projects that have direct benefits to water quality; CWC's grant programs for stormwater and septic system retrofits; and WAC's sponsorship of whole farm planning and installation of best management practices for water quality on farms. These programs have been very successful at protecting water quality at little or no expense to landowners and communities. Note that none of this funding is available in the Susquehanna watershed.

Land use in Delaware County has changed dramatically within the last 50 years. Prior to 1950, 80% of our lands were cleared for farming and settlement, and 20% of the land was forest. Today, those statistics have flip-flopped, with approximately 81% of our lands in some kind of forest cover. A number of factors have contributed to this reforestation. First and foremost, farm-gate practices have not supported smaller family farms. As these farms went gone under, many of them were subdivided into 7-10 acre building lots. Little land was actually sold, however, and the swaths of land remained vacant, succeeding eventually into forest. Currently, about 17% of our lands are agricultural, down from 20% in 2002. [FN6] About 2% of our lands are in some kind of settlement. It is impossible to reduce N and P contributions in any meaningful way from forest lands. Given this fact, the geography of Delaware County means that the burden of achieving N and P reductions will fall in large part on our farmers, many of whom are already teetering on

the brink of bankruptcy. The stagnant economy in Delaware County and New York State, coupled with low farm-gate milk prices (dairy is our main form of agriculture) will conspire with this TMDL to drive many of our farmers out of business.

In 1999, New York State adopted EPA's phase II stormwater regulations which identified population centers that were in excess of 100,000 persons be required to incorporate Municipal Separate Storm Sewer Systems (MS-4) standards. In New York State, municipalities that have attempted to meet these standards recognize the high cost associated with implementing these standards. Given our experience with implementing storm water controls in the New York City watershed, the cost versus benefit for pollution control has proven to be very low. To require MS-4 technology throughout rural New York State will provide infinitesimal nutrient reduction while exhausting huge sums of public funding and creating an onerous regulatory threshold of compliance.

At the October 27th meeting with the Upper Susquehanna Coalition, EPA staff made vague references to "funding following the regulations" in the TMDL. Not only is there no commitment by EPA to consistent funding, this is compounded by the fact that any funding that does appear will more than likely go to other areas of the watershed. As we noted above, Delaware County has been committed to improving water quality for decades, and our work has resulted in water that is much cleaner than other jurisdictions. If the concentrations of N and P in our water are lower, then it stands to reason that their extraction will be more difficult and consequently more expensive. Why would any funding entity spend money in Delaware County when the reductions achieved per dollar are much smaller here than other areas in the watershed? The funding will go where it is most effective, and unfortunately that is not anywhere in New York. We do not expect any meaningful financial support for compliance with the TMDL, although we sincerely hope we are proven wrong.

[FN6] http://www.agcensus.usda.gov/Publications/2007/Online_Highlight/County_Profiles/New_York/cp36025.pdf

Response

EPA appreciates the dedication to improve local water quality as explained by the commenter. EPA is not able to direct funds to any jurisdiction in the watershed due to competition regulations, however EPA hears the concerns regarding funding in New York for Chesapeake Bay restoration. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0568.1.001.009

Author Name: Eisel James

Organization: Delaware County, New York

Funding

1) EPA needs to commit to significant funding for communities and landowners to come into compliance with this TMDL

a) One suggestion might be that the taxpayers of Maryland, Virginia and Delaware (the direct beneficiary of a clean-up program) pool their resources and commit to a watershed program not unlike that of the City of New York.

Equity

1) Revisit TMDL to hold tidal jurisdictions more accountable

Next steps/drill down

- 1) Involve local jurisdictions in TMDL planning
 - a) Conduct targeted outreach in each county
 - b) Clearly explain what the local obligations will be
 - c) Provide technical support for achieving reduction targets

Response

It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish funding or sources of funding. Please see the response to 0038.1.001.024 outlining the Federal effort towards the Bay and the response to 0080-cp.001.002 discussing equity and New York.

Comment ID 0568.1.001.011

Author Name: Eisel James

Organization: Delaware County, New York

Funding

The Chesapeake Bay Water and Ecosystem Restoration Act of 2000 [FN7] contain impressive numbers for allocations to aid jurisdictions to address water quality issues. Unfortunately, the numbers become inconsequential when compared to the upgrade cost of each community waste water treatment facility. The watershed has 483 significant waste water treatment facilities. [FN8] It would not be unreasonable to believe that at least 1/2 of these systems would require an upgrade upon adoption of the TMDLs. Based on recent history when New York City upgraded smaller systems for a single nutrient as to attain a 2 mg per liter phosphorus level, [FN9] (which was underway almost 10 years ago and lower construction costs) the total cost for the upgrades could likely leave no money available for any farm programs necessary to address CAFOs. Delaware County demands that any future Bay clean-up initiative will be fully funded. In the New York City watershed, the residents of the watershed were required to implement an elevated watershed protection program. The program is almost fully funded by the rate payers of the City of New York.

[FN7] S. 1816: Sponsored by Senators Cardin (MD), Carper (DE), Mulkowski (MD), Kaufman (DE). Placed on Senate legislative calendar.

[FN8] Wastewater Treatment: www.chesapeakebay.net/wastewatertreatment.aspx

[FN9] NYC upgrade costs: ingentaconnect.com/search/article?title+watershed+upgrade-program+title_type=tka&year

Response

For further information please see the response to Comment ID 0139.1.001.017 where EPA discusses the desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions. For further information on funding sources, please see the response to Comment ID 0038.1.001.024 outlining the federal efforts towards Chesapeake Bay restoration.

Comment ID 0583.001.002

Author Name: Campaign Mass

Organization: Virginia League of Conservation Voters

As currently drafted, the plan contains no commitment to fund best management practices on Virginia's farmland. We must provide our farmers the support they need to protect water quality

Response

Please see the response to Comment 0034-cp.001.001 and the response to comment 0139.1.001.006 outlining funding to the agricultural community.

Comment ID 0586.1.001.011

Author Name: Fischer Micaela

Organization: The Pew Environment Group

Conclusion

In closing, we again emphasize that we understand and appreciate that many individual farmers have undertaken conservation practices to mitigate the release of nutrients and sediment from their operations. Many of these valuable efforts have been supported, in part, with federal and state cost-share programs. We are hopeful that funding and technical assistance will be available in the future, particularly to assist small and limited-means farmers to undertake important conservation practices, including stream fencing, and we believe that the state WIPs should document plans for increasing these resources.

Response

EPA directs the commenter to agricultural funding sources outlined in Comment 139.1.001.006 and the Federal commitments to the Bay in Comment 0038.1.001.024. For discussion of WIP requirements, please see the response to comment 0067.1.001.009 and Section 8 of the TMDL report.

Comment ID 0611.1.001.002

Author Name: Knapp Leslie

Organization: Maryland Association of Counties (MACo)

Federal Funding Needed for County Governments: The estimated costs of implementing the TMDL requirements and achieving the target loads are enormous. In Maryland, costs for potential stormwater retrofits alone could run in the billions. Even in prosperous times that figure would be daunting, but when the State's local aid has been significantly reduced and counties are still feeling the effects of the recession, it becomes unattainable. Some counties anticipate having to double their planning staff. There is no way certain counties could raise taxes or fees to a level that would cover their anticipated TMDL costs. With federal legislation like Senator Cardin's S. 1816 and its House counterpart H.R. 3852 moving slowly or stalled, counties need some assurance from EPA that federal funds will be forthcoming.

Response

Please see the response to Comment 0038.1.001.024 which outlines Federal commitments to the Bay and the response to comment 501.1.001.005 which discusses public sector point sources.

Comment ID 0614.1.001.013

Author Name: Street William

Organization: James River Association (JRA)

A key factor in achieving the agricultural allocation will be funding for cost-share programs and technical assistance. JRA supports full funding of state and federal agricultural cost-share and technical assistance programs. We urge you to incorporate into the final WIP a commitment to pursue full funding of the Virginia Agricultural Cost-Share Program as specified in the annual funding needs assessment for Virginia agricultural BMP's prepared by DCR for the Virginia House Appropriations and Senate Finance Committees. JRA also supports prioritizing large farms for early implementation and accountability and providing incentives for early adoption.

Response

Please see the response to comment 0139.1.001.006 for a discussion of agricultural funding and the response to comment 0034-cp.001.001 for consideration of the Virginia WIP.

Comment ID 0622-cp.001.004

Author Name: Bruce D.

Organization: Rainbow Hill Farm

Burdensome regulations will only hurt us, and put us out of business. Farmers know that if you don't take care of it, you lose it. We work very hard to care for the environment, and make very little money in the process. We aren't rich! You might look to the commercial plants that pollute, and communities who allow residents to pour toxic things down the drain. The TMDL is a flawed model, and unjustly blames farms for the ills of the Chesapeake Bay. If there will be requirements made to the farmers, which are good for the land and water, then there must be money provided to the farms for implementing them. In this time of deficit spending by our government, how can we expect the state or federal government to help us? No farms, no food.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to 0379.1.001.006 which addresses your concerns with the model.

Comment ID 0654.001.004

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

EPA has coerced the states into developing WIPs and in many instances improperly rewritten these WIPs through its "backstop allocations." The WIPs reflect the policy choices of the states of how to best utilize their own limited financial and regulatory resources to manage the land uses, sources and industries within their borders. Implementing the WIPs as unilaterally modified by EPA in the Draft TMDL will require substantial funding from the state and federal government. EPA appears to have proposed its Draft TMDL without securing the funding to implement these plans. It is important to understand the financial gap in funding the BMPs envisioned in the WIPs. Tyson recommends that a gap analysis be conducted, as well as a cost-benefit analysis of implementation of all WIPs.

Response

EPA will not be conducting a cost-benefit analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Please refer to the response to comment 0067.1.001.009 for discussion of WIP backstops. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0656.001.002

Author Name: Dietrich Fredric

Organization: Town of Danby and Tompkins County, New York

Rural highways tend to be an orphan in watershed management programs. We wish to remedy that serious gap. Our ability to do so will obviously depend upon having adequate resources to do so. We trust that the evolution of the Chesapeake Bay Watershed Program will facilitate the ability to access needed resources to address a singly most important source of nutrients and sediment as we collectively work towards the remediation on the Chesapeake Bay.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. There are federal and state resources that are available to address run off from impervious surfaces such as highways. The following website provides information on all federal grants, with the ability to search for funds specific to your concerns, <http://www.grants.gov/>.

Comment ID 0656.001.008

Author Name: Dietrich Fredric

Organization: Town of Danby and Tompkins County, New York

More specifically, we are concerned that the draft TMDL neglects to consider innovative methods to address the nutrient levels in rural areas like Danby. Danby has in fact been developing a proposal aimed at doing so, one that could be a model for other areas, but needs financial support from the EPA to implement it.

Response

The TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

There are grant programs available to address run off in rural areas such as the USDA's Resource Conservation and Development

(RC&D) program. The purpose of this program is to accelerate the conservation, development and utilization of natural resources, improve the general level of economic activity, and to enhance the environment and standard of living in designated RC&D areas.

Comment ID 0656.001.011

Author Name: Dietrich Fredric

Organization: Town of Danby and Tompkins County, New York

Towns will be forced to come up with progressively more creative measures to reduce nitrogen, phosphorus, and sediment outputs. New York has already been implementing such strategies for years. Danby has been and is continuing these efforts, but additional funding will be necessary to effect any further changes. The town is nonetheless enthusiastic about attempting to come up with a program that will have that effect.

Response

Please see the response to 0501.1.001.005.

Comment ID 0671-cp.001.001

Author Name: Reese Jodi

Organization: CET Engineering Services

Given the reality of the economic situation that exists for all in the Bay watershed and beyond, the implementation of the actions needed to restore the Chesapeake Bay will not occur unless there is sufficient funding by the federal and state governments. This was the conclusion of the Blue Ribbon Finance Panel created by the Chesapeake Executive Council in 2004. Will the recommendations of the Blue Ribbon Finance Panel be implemented and, if not, what effective funding and financing efforts will be made?

In an effort to identify the financial resources essential for cleaning up the nation's largest estuary, the Chesapeake Executive Council in December 2003 called for the creation of a Blue Ribbon Finance Panel to make recommendations for the effective funding and financing of the Bay clean-up effort. The Panel reached an early and strong consensus, however, that simply improving existing programs alone will not be sufficient. The Panel recognized that something more substantive and dramatic will be required. The Blue Ribbon Finance Panel proposed that the six Bay watershed states and the District of Columbia create a Chesapeake Bay Financing Authority, capitalized by the federal and state governments, with the capacity to make loans and grants. Their conclusion was that the Federal government should provide \$12 billion and the seven jurisdictions together should contribute \$3 billion. The Chesapeake Bay has been rightly called a National Treasure but the draft EPA TMDL is requiring the ratepayers of point source wastewater treatment facilities to unfairly bear the majority of the cost for restoration.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0684.1.001.005

Author Name: Saunders Jim

Organization: Saunders Brothers,Inc.

• Cost share funding will be critical to meeting demands of EPA. Agriculture, lawn care, turfgrass, forestry, have all seen depressed profits, just as the State and local governments have been facing historic deficits. Individual businesses, farmers, and the State cannot meet this unfunded mandate from EPA without significant federal funding.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0687.001.003

Author Name: Comment Anonymous

Organization:

4. How/where do the TMDL or EPA WIP backstop comments address cost effectiveness of the proposal?

Response

Please refer to the response to comment 0139.1.001.017.

Comment ID 0689.1.001.027

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

40. EPA paints the TMDL as a "moving target." EPA apparently does not appreciate the economic realities of local government, which cannot plan for expensive upgrades on an "as needed" basis, but, in many instances, must secure funding from outside sources, such as the bond market, for a project.

Response

Please refer to the response to comment 0139.1.001.017. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 for discussion of public sector point sources.

Comment ID 0699-cp.001.003

Author Name: Garvick Jeffrey

Organization: Board of Commissioners, Pennsylvania Township and York County

The Township of Penn also awaits the outcome of the recommendation of the Blue Panel Finance Panel convened in 2004. As you are aware, this panel was ordained by the Chesapeake Executive Council and has recommended that the clean-up effort be financed by the Federal and State governments in the amount of \$15 billion. The Panel rightly recognized that rehabilitation costs could not come from local governments and authority's alone if the Bay restoration were to be successful.

Response

Please see the response to comment 0217.1.001.003 regarding the recommendations of the Blue Ribbon Panel and addressing the cost to municipal point sources.

Comment ID 0709.001.003

Author Name: Schneider Richard

Organization: Southern States Cooperative, Inc.

Cost of Compliance and Current Economy

The Bay TMDL, which requires Virginia to develop a Watershed Implementation Plan (WIP), will have a high cost for compliance for all sectors. While we agree that there is a benefit of clean waters within the Bay and local watersheds, the economic costs for compliance must be balanced, and water quality programs cannot be developed in a vacuum without considering economic impacts to the economy.

Before moving forward with a finalized Bay TMDL, EPA must conduct a non-biased economic impact analysis. Experts from land-grant universities from across the watershed could be called upon to evaluate the actual costs of meeting water quality standards for businesses, citizens, localities, states, and the federal government.

Response

Please refer to the response to comment 0139.1.001.017.

Comment ID 0709.001.005

Author Name: Schneider Richard

Organization: Southern States Cooperative, Inc.

Cost share funding will be critical to meeting demands of EPA. Agriculture, lawn care, turfgrass, forestry, have all seen depressed profits, just as the State and local governments have been facing historic deficits. Individual businesses, farmers, and the State cannot meet this unfunded mandate from EPA without significant federal funding.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0711.001.007

Author Name: Schwartz Laurie

Organization: Waterfront Partnership of Baltimore, Inc.

The two areas which we would only ask that greater attention be paid are to b] funding: as mentioned before, Baltimore City is considering creating a Storm Water Fee or Utility, which we support. We would urge EPA however to work with the President and Congress to increase funding for Stormwater infrastructure upgrades.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0723.001.002

Author Name: Barton Marylou

Organization: Lancaster County Clean Water Consortium

In subsequent years, the Consortium will use this information to guide the selection of Lancaster County priority implementation projects to effectively achieve watershed & county goals; identify appropriate state and federal funding sources for implementing projects ; leverage local dollars from municipalities, businesses and foundations; and submit applications to finance implementation projects with watershed- wide impact on nutrient and sediment loads.

Response

EPA appreciates the effort and support of the Consortium to take a collaborative approach to addressing local water quality concerns that will also result in positive improvements in downstream water quality.

Comment ID 0727.001.008

Author Name: Thigpen Janet

Organization: Steuben County Environmental Management Council

If Chesapeake Bay restoration requires additional load reductions from the already clean waters originating in New York, funding should be provided to enable implementation of those measures. Due to the high existing water quality, the Susquehanna and Chemung Basins are not top funding priorities for use of New York's limited resources . If restoration of the Bay necessitates additional load reductions from New York, those improvements should be fully financed by federal sources and/or the states that stand to benefit financially from Bay restoration . This approach has worked in southeastern New York, where New York City pays for and benefits from water quality improvements in the watersheds that supply the City's drinking water.

Response

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York and the response to comment 267.1.001.006 for discussion of how New York's pollutant load must be considered in the TMDL. See the response to comment 0038.1.001.024 outlining the Federal effort to the Bay.

Comment ID 0728.001.006

Author Name: Proto Frank

Organization: Tompkins County Water Resources Council

WHEREAS, the Federal Government does not ensure realistic delivery of needed funding and technical assistance and provide regulatory flexibility to allow for implementation of continually improving on-farm practices in response to site-specific environmental variables,

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions.

Comment ID 0731-cp.001.001

Author Name: Jamison Peggy

Organization: Garrett Co. Municipalities

In general, there will be serious implications from this Phase I WIP and the impact on the small, budget-challenged towns of Garrett County is going to be significant. The local governments continue to be faced with major budget deficits and there does not appear to be an end in sight to the loss of revenue facing the towns. We wholeheartedly agree with the Garrett County Planning Commission that any cost for the implementation of this program must be accompanied by adequate funds to offset the costs.

Response

Please see the response to comment 0139.1.001.017 for a discussion of the consideration of cost. Also, please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0139.1.001.006 for discussion of public sector point sources.

Comment ID 0737.001.001

Author Name: Comment Anonymous

Organization: Lower Allen Township Authority

Federal Mandate No Funding - The EPA Chesapeake Bay TMDL as supported by the Executive Order places a federal mandate on local governments with no funding, which by definition is a tax. The EPA backstop Pennsylvania WIP results in a further punitive tax against point sources that are working toward compliance and rewards non-point sources for noncompliance. EPA's backstop Pennsylvania WIP should identify the funding resources necessary to implement the Agency WIP with a gap analysis to provide reasonable assurance, identify the federal resources for actual upgrades to plants. The total federal, state, local and private cost burden to each should be identified in the TMDL.

Response

Please see the response to comment 0067.1.001.009 for discussion of EPA's WIP backstops.

Please refer to response to comment 0139.1.001.017 regarding cost analysis.

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Please note that a TMDL is not a federal mandate.

Comment ID 0746.1.001.010

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

The Draft TMDL's basic approach for the restoration of the Chesapeake Bay generally consists of the establishment of nutrient allocations for each jurisdiction, of which the individual Bay States and their Bay Watershed municipalities and residents would be responsible to achieve by funding the associated necessary improvements. This would place very large unfunded mandates upon each state in the Bay watershed. Some of these states, including New York State, geographically are remote from the Bay, already have good water quality, and derive no direct benefit from the Bay.

The Draft TMDL current allocation approach appears to be more of a political solution that diffusely spreads "responsibility" across the entire watershed, as opposed to devising cost-effective solutions by focusing the greatest burden on the communities whose development both cause the greatest impacts and derive the greatest direct benefits from their proximity to the resource.. Because resources to address the restoration of the Bay are limited and the need for cost-effective solutions is paramount, it is doubtful that "biggest bang for the buck" opportunities to reduce nutrients exist in New York State, given its already good water quality and its low nutrient delivery factors. At a time when there is already a large State Budget Deficit indicating that, in all likelihood, most of the significant implementation costs (up to \$4 billion) would have to be paid by the relatively low population-base within this portion of New York.

Other more equitable funding approaches for the Chesapeake Bay restoration initiative exist, as opposed to placing unfunded mandates upon the individual states, some of which cannot pay them. In addition, these alternate funding approaches, if applied, may lead to the development of cost-effective solutions which would allow actual water quality improvements to occur within the Bay.

b. A Significant Federally Funded Approach Is Needed

The Chesapeake Bay has been widely acknowledged by various national figures as a "national treasure" leading to the obvious conclusion that the most fair solution for its restoration likely extends across state boundaries. Therefore, a federally administered and funded approach is be the most equitable method to fund Bay restoration. The federal government's ability to lead the Chesapeake Bay restoration effort would be significantly diminished by anything less than a largely federally funded approach, compromising the effectiveness of this initiative and risking its failure.

If a National funding approach, dedicated to restoring this national treasure is adopted, comprehensive solutions that ignore state boundaries as they could then be selected based upon cost-effectiveness and creativity (as opposed to political "solutions" that focus upon creating the appearance of allocation equity without providing the funding needed to achieve these allocations).

c. New York City Watershed Model as a Funding Model

A template for a potential funding approach for the Chesapeake Bay Restoration Initiative may already exist with the New York City Watershed model. In the New York City Watershed program, a downstream entity (New York City) requiring improved water quality has paid for upstream improvements which were not needed to address upstream local

water quality but solely/largely to achieve downstream water quality benefits. The New York City/NYC Watershed scenario parallels the Bay States/New York State relationship in regards to the Chesapeake Bay Restoration Initiative.

Our Coalition calls upon the federal government to shoulder the majority of both the capital and increased operation and maintenance cost of implementing the final TMDL, at least within the headwaters, non-Bay touching states of New York, West Virginia and Pennsylvania. Those States whose shores directly touch the Bay which, perhaps not coincidentally, are also experiencing the highest population growth, whose residents, for the most part, are more affluent than the Bay watershed headwater residents, and who directly benefit from their proximity to the Bay, should pay a greater share of their TMDL-related costs directly.

Response

A TMDL is not a federal mandate. For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0747.001.004

Author Name: Hankins Joseph

Organization: Jefferson County (West Virginia) Public Service District

Federal funding for public utility point source upgrades must include grant or negative interest loans that are specifically dedicated to Chesapeake Bay restoration outcomes.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

24.4 - GENERAL/MISCELLANEOUS

Comment ID 0052.1.001.005

Author Name: Gross Penelope

Organization: Fairfax County Board of Supervisors

In response to what it identified as an enormously costly undertaking, the Blue Ribbon Finance Panel recommended the creation of a \$15 billion interstate Chesapeake Bay Financing Authority, \$12 billion of which would be capitalized through

federal appropriations, with the remaining \$3 billion contributed by the states in the Chesapeake Bay watershed and the District of Columbia. Unfortunately, the Panel's report seems to be forgotten, and the Governors' subsequent appeals to Congress were rebuffed, but we believe a review of these recommendations would be very timely.

Response

Please see the response to 0217.1.001.003.

Comment ID 0057-cp.001.001

Author Name: Abel Katie

Organization:

The rivers and bays are natural habitats for seafood and clean water. Forests are natural habitats for game and naturally clean our air and water. Conversely, crops and livestock provide us with food that wouldn't naturally occur in our ecosystems on the large scale that they do on farms. The negative impacts these farms have on watersheds are a direct result of our desire for livestock and crops. Therefore, we the consumers and growers of farmed meat and produce should be willing to pay the price to clean up the resulting byproducts.

The same applies to urban development. We all want our piece of land, but we must be willing to take responsibility for the contamination we introduce into the storm water as it runs off our property.

Response

Thank you for your comments.

Comment ID 0066.1.001.010

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

Likewise, information on costs or the best management practices that can be used to meet the urban stormwater requirements have not been made available. Other technical and cost data is similarly absent from the docket, as is any way to quickly understand how the proposal will affect the various industries, communities, or individuals within the watershed.

Response

Please see the response to 0036-cp.001.001.

Comment ID 0097-cp.001.001

Author Name: Comment Anonymous

Organization:

A creative way to finance these mandates would be to allow farmers to gain tax credits from "non farm" income to use for improvements such as fencing. Not tax "write offs" but actual tax credits. The credits could be transferable so as an example:

Farmer Jojn needs a fence to hide the creek from the cattle. He has low income and low cash. Lawyer/Envrionmentalists "Bill" makes a lot of money. He puts in a fence for Farmer John with his "tax credit" and sells the fence to farmer John for whatever he can afford. His sale price would come out of his credit, and farmer john would be able to write off whatever he paid to Bill for the fence.

The government does in effect does pay for the fence but it is spread out all over the place. The fence gets done sooner, the water gets clean sooner and the costs savings of cleanup will more than pay for the fence over the long run.

This way envrionmentalists can put their money where their mouth is and farmers will not be bankrupted by government intrusion into their constituional rights.

Response

Please see the response to 0038.1.001.024.

Comment ID 0103.1.001.006

Author Name: Laudeman Todd

Organization: Tioga County Landowners Group

The Department of Environmental Conservation (DEC) in partnership with the USC, Ag and Markets, the Natural Resources Conservation Service (NRCS), and other collaborators developed a reasonable plan for best management practices (BMP) implementation that considers current and future budget limitations for NY. The NY draft Watershed Implementation Plan (WIP) is based on approximately \$200M of technical and financial support that could be available for agricultural BMPs through 2025.

In contrast, the cost to implement EPA's backstops for reasonable assurance is estimated to be \$350M through 2025 for the Agricultural sector alone. When all sectors are considered, EPA mandated practices could reach \$6 billion dollars over the next 15 years.

Response

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay. Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0104-cp.001.004

Author Name: Anderson R. N.

Organization:

I oppose adoption of the proposed draft TMDL for the Chesapeake Bay for the following reasons:

The proposed rule will introduce an additional, unnecessary element of cost and uncertainty in the ongoing discussion of the pros and cons of development of natural gas resources which underlie a large portion of the Chesapeake Bay watershed. This process should be left to the state regulatory authorities who are vested with responsibility for this local matter without interference, intended or inadvertent, by EPA .

Response

Please see comment 0190-cp.001.002 for a response to this comment.

Comment ID 0126.1.001.016

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The approach needs to be incentive based, while there may need to be a means to encourage those that have situations that have significant negative impacts on water quality. Planning needs to reflect cost effective approaches to achieve water quality desires.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions.

Comment ID 0139.1.001.007

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

We propose that an economic impact study be conducted to evaluate the extent of this cost and some alternatives before moving forward.

Response

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0139.1.001.017

Author Name: Horn Charles

Organization: Headwaters Soil and Water Conservation District

8. Conduct economic impact study

Response

The Clean Water Act (CWA) Section 303(d) requires TMDLs to be established for impaired or threatened waters at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety. Federal regulations at 40 CFR Section 130.7(c) track the statute and require TMDLs to be developed at levels necessary to attain and maintain the applicable narrative and numerical water quality standard with seasonal variations and a margin of safety and that take into account critical conditions. TMDLs are to include wasteload allocations for each point source and load allocations for nonpoint sources. Neither the CWA nor EPA's implementing regulations require the state or EPA to consider the costs to implement the TMDL when establishing the TMDL at a level necessary to implement the applicable water quality standards.

The cost of implementing the Bay TMDL has not yet been determined. In order to provide a good cost estimate it is necessary to first determine which sources need to install what type of controls. This information is only available after the Watershed Implementation Plans are completed. Each jurisdiction has a unique set of practices they intend to use to meet water quality standards. Furthermore, the true cost of implementation can be dramatically reduced if progressive trading, particularly, point to non-point trading is used to achieve the needed load reductions. Approximately 5 years ago, a Blue Ribbon panel estimated the cost of the state tributary strategies. These strategies provided similar level of controls as the current jurisdiction's watershed implementation plans. The estimated cost of implementing those tributary strategies was \$20-30 billion, much of that for the control of stormwater.

Clean water decreases public health burdens associated with consuming tainted fish or shellfish or exposure to waterborne infectious disease while recreating. Mercury fish consumption advisories in Maryland result in annual losses of \$8.83 million for saltwater fishing and \$520,000 for the commercial striped bass fishery (34). Economic valuation studies indicate the annual human health benefits from reducing mercury pollution at tens of millions to billions of dollars from avoided health problems and lost productivity (35, 36, 37). Another study estimated the cost associated with exposure to polluted recreational marine waters to be \$37 per gastrointestinal illness, \$38 per ear ailment, and \$27 per eye ailment (38). Reducing pollution inputs from pipes and land-based sources can reduce locality costs to treat drinking water sources to safe standards. New York City's expenditure of \$1 billion over the last decade to protect the watersheds north of the city that supply its drinking water avoided the need to build a \$6 billion treatment plant (39). An EPA study of drinking water source protection efforts concluded that for every \$1 spent on source water protection, an average of \$27 is saved in water treatment costs (40). Proactive efforts to lessen stormwater flows today reduce future public costs needed to maintain navigation channels, remediate pollution and hazard flooding, and repair infrastructure and property damage caused by excessive runoff.

Philadelphia estimates that after 40 years their installation of green infrastructure will create more than \$2 in benefits for every dollar invested, generating \$500 million in economic benefits, \$1.3 billion in social benefits, and \$400 million in environmental benefits (41). A study by the University of Virginia found that implementation of the agricultural practices to reduce runoff pollution called for in Virginia's Chesapeake Bay "tributary strategy," such as livestock stream exclusion, buffers, and cover crops, would generate significant economic impacts. Over a five year period these actions would create \$940 million in industrial output, a \$455 million impact on gross domestic product, and create nearly 12,000 jobs (42).

- 1) Maryland Department of Economic and Employment Development. 1989. Economic Importance of the Chesapeake Bay.
- 2) Chesapeake Bay Blue Ribbon Finance Panel. 2004. Saving a National Treasure: Financing the Clean up of the Chesapeake Bay. A Report to the Chesapeake Executive Council from the Chesapeake Bay Watershed Blue Ribbon Finance Panel. www.chesapeakebay.net/content/publications/cbp_12881.pdf.
- 3) EPA. 2009. Draft Chesapeake Bay Compliance and Enforcement Strategy. www.epa.gov/oecaerth/civil/initiatives/chesapeakebaystrategyenforcement112409.pdf.
- 4) Maryland Department of Natural Resources. www.dnr.state.md.us/dnrnews/infocus/bay_faq.html. Visited July 22, 2010.
- 5) Delaware's Draft Phase I Chesapeake Bay Watershed Implementation Plan. September 1, 2010. Appendix F. www.wr.dnrec.delaware.gov/Information/WatershedInfo/Documents/Chesapeake%20Phase%201%20WIP/DE_DRAFT_Phase1_WIP_withAppendices_090110a.pdf.
- 6) Kirkley, et. al. 2005. Economic Contributions of Virginia's Commercial Seafood and Recreational Fishing Industries: A User's Manual for Assessing Economic Impacts. Virginia Institute of Marine Science (VIMS), VIMS Marine Resource Report No. 20059, December 2005. www.mrc.virginia.gov/miscellaneous/VIMS%20Economic%20Impact%20Report%202005.pdf.
- 7) Southwick Associates. 2006. The Relative Economics Contribution of U.S. Recreation and Commercial Fisheries. www.angling4oceans.org/pdf/Economics_of_Fisheries_Harvests.pdf.
- 8) America Sportfishing Association. 2008. Sportfishing in America: An Economic Engine and Conservation Powerhouse. www.asafishing.org/images/statistics/resources/Sportfishing%20in%20America%20Rev.%207%202008.pdf.
- 34) P. Jakus, et al. 2002. The Benefits and Costs of Fish Consumption Advisories for Mercury. Resources for the Future. Discussion Paper 0255. www.rff.org/documents/RFFDP0255.pdf.
- 35) Northeast States for Coordinated Air Use Management. 2005. Economic Valuation of Human Health Benefits of Controlling

- Mercury Emissions from U.S. CoalFired Power Plants. www.nescaum.org/documents/rpt050315mercuryhealth.pdf.
- 36) L. Trasande, et al. 2005. Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain. *Environmental Health Perspectives*. Vol. 113, No. 55. pp. 590596. www.medscape.com/viewarticle/504642.
- 37) B. Windham. 2002. Economic Cost of Mercury/Toxic Metals Emissions in Florida. <http://www.flcv.com/mercost.html>.
- 38) R. H. Dwight, et al. 2005. Estimating the economic burden from illnesses associated with recreational coastal water pollution a case study in Orange County, California. *Journal of Environmental Management*. Volume 76, No. 2 pp. 95103.
- 39) DePalma, A. 2006. New York's Water Supply May Need Filtering. *New York Times*. June 20, 2006. www.nytimes.com/2006/07/20/nyregion/20water.html?_r=1&hp&ex=1153454400&en=2be183debc88eae7&ei=5094&partner=homepage&oref=slogin. Visited July 22, 2010.
- 40) U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki, EPA.
- 41) See note 32.
- 42) Rephann, T.J. 2010. Economic Impacts of Implementing Agricultural Best Management Practices to Achieve Goals Outlined in Virginia's Tributary Strategy. Weldon Cooper Center for Public Service, University of Virginia. February 23, 2010. www.coopercenter.org/sites/default/files/publications/BMP_paper_final.pdf.

Comment ID 0200.1.001.002

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

While the TMDL and WIP offer admirable, necessary goals, whether or not the capacity to achieve the lofty expectations, especially at the local level, is in place or possible is questionable. The question cannot begin to be answered without cost estimates and specific workload analysis. Both the draft TMDL and WIP were silent in regards to cost estimates. These cost estimates and local government loading reduction expectations need to be included with the TMDL and WIP drafts in order for local jurisdictions to evaluate the level of commitments that can feasibly be made to achieve these goals. Local planning staff, as well as decision makers and the public, need to be aware of the fiscal and resource demands of the drafts.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0202.1.001.007

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

C. Remoteness from Chesapeake Bay & Associated Benefits

New York State is remote from the Chesapeake Bay and would derive no direct benefit from improvements to its water quality. Those benefits, associated with improved Bay water quality, would be enjoyed by those states immediately adjacent to the Bay. As such, without financial assistance, New York State taxpayers will be paying largely to the benefit of those that live and work around the Chesapeake Bay. What benefit will the affected residents of New York State realize, and has this been documented in any semblance of a socio-economic impact study?

Response

EPA is not conducting a socio-economic impact study as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. Also, please see the response to comment 0267.1.001.006 and the response to comment 0080-cp.001.002 which are specific to NY.

Comment ID 0202.1.001.013

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

Furthermore, beyond the initial construction costs, increased annual O&M costs would also be significant and a recurring financial burden for rate payers. A funding mechanism by which increased O&M costs can be defrayed should be developed and instituted. A template of such a funding mechanism may already exist with the New York City/New York City Watershed program. In the NYC/NYC Watershed example, a downstream entity requiring improved water quality paid for upstream WWTP improvements (and increased O&M costs), that were not needed for upstream water quality but for downstream water quality benefits. It is felt that the NYC/NYC Watershed scenario parallels the Bay States/New York State situation currently at point.

Response

One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. This includes looking at all options in order to reduce pollutants and the possibilities involved with trading which could alleviate some of the burden of cost.

Please see the response to comment 0501.1.001.005 regarding public sector point sources.

Comment ID 0225.1.001.005

Author Name: Locke Latana

Organization: Fredericksburg Area Association of Realtors (FAAR)

FAAR appreciates EPA's efforts to improve the health of the Bay, but we urge you to slow down and truly calculate the costs of TMDL compliance on local governments, businesses, and citizens in areas that are already struggling with unemployment, foreclosures, and shrinking budgets.

Response

EPA is using the best available data to develop this TMDL. At such time as new data is received EPA will use that information to update and improve upon the model. EPA allowed jurisdictions the opportunity to develop a Watershed Implementation Plan that meets the TMDL allocations. If a jurisdiction is unable to meet the targeted allocations or provide the justification on how it will meet those allocations then EPA must ensure that the TMDL allocations will be met with or without regard to cost as referenced in the response to comment 0139.1.001.017.

Comment ID 0228.1.001.004

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

Separating the total loadings of pollutants by sector (i.e. Agriculture, Urban Runoff, Wastewater, On-Site Septic, Forest and Non-Tidal Deposition) without clearly articulating the interconnection of some sectors leads to unnecessary conflict and a loss of one critical, big-picture item: that the vast majority of the people who contribute to detrimental urban runoff are also the people connected (through home and/or work) to a Wastewater Treatment Plant (WWTP). WWTPs are funded by a combination of "tap fees" (fees charged for new connections for compensation of system capital costs attributed to new users) and user fees to pay for plant upgrades and their operation and maintenance costs. These same "WWTP users" occupy housing, utilize shopping centers, work in office and industrial facilities, drive on roads, and utilize public facilities. The very lifestyles of these WWTP users cause the existence of surfaces that create urban runoff [FN3]. Thus, these two sectors are inexorably linked and should be examined collectively in relationship to the other sectors. Allocations for both should be developed to achieve the total desired pollutant reduction in the most cost-effective manner. The same people will pay for upgrades to WWTPs and/or urban stormwater retrofits through either general revenue taxes, storm utility fees, or stormwater service district taxes.

[FN 3] There is also, of course, urban runoff from low-density developed areas whose sewage is handled by on-site septic systems, so the correlation is not perfect. However, in low-density development areas, more of these surfaces are "disconnected impervious surfaces" which are commonly accepted as a low-impact development technique because much of the runoff can sheet-flow into pervious areas to be filtered, infiltrated, or evapotranspired. Disconnected impervious surfaces have less of an effect upon water quality than similar surfaces in higher-density areas (those commonly served by WWTPs). For example, in the Occoquan Watershed in Fairfax County, Virginia,

nonstructural Best Management Practices (BMPs) in the form of minimum size five acre lot zoning without SW/BMPs has protected the Occoquan Reservoir's water quality since the mid-1970s. (Higher density areas in this watershed must provide SWM/BMPs.)

Response

EPA has included in this TMDL Individual and Aggregate WLAs that cover approximately 500 significant dischargers and 4000 non significant dischargers in the Bay watershed. The TMDL also provides aggregated loads all nonpoint sources including non-regulatory stormwater runoff. In order to develop a TMDL that is protective and meets the water quality standards of the Bay, it is not necessary to discuss the link between users of a WWTP and homeowners who might have stormwater runoff. The allocations that are provided are designed to assist the States, organizations, dischargers, and others in understanding the most significant sources of nutrients and sediments. States should use this information to provide strategies and permit conditions in their watershed implementation plans to achieve the allocations. While the similarities in some sectors that you mention are valid, EPA chose to have separate allocations for these sectors because the regulatory and control mechanisms are vastly different for these source sectors.

With regards to the comments concerning, low density developed areas, EPA agrees that disconnecting impervious surfaces is an effective low-impact development technique that can improve water quality of the watershed.

Comment ID 0228.1.001.010

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

Exhibit 2 [Comment Letter contains additional information in the form of an attachment. See original comment letter 0228.1] also contains an order-of-magnitude cost estimate using Bay Program data for four WWTP nutrient reduction options, as summarized in Table 4, below:

Table 4: Order-of-Magnitude Cost Estimate for WWTPs [Please see page 7 of the original letter (Docket ID 0228.1.001.010).] [FN16]

An examination of Tables 2 and 4 shows that WWTP upgrades are roughly an order of magnitude (approximately ten times) more cost-effective than urban stormwater management retrofits per pound of pollutant removed. Therefore, the requirement to retrofit urban areas in lieu of upgrading WWTPs will result in a much greater cost burden on urban- and suburban-dwelling citizens of the Commonwealth, as discussed above.

[FN 16] Limits of Technology (TN = 3.00 mg/L; TP = 0.10 mg/L)

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction. In addition, while retrofits are costly, there are numerous low cost to no cost approaches to reduce urban loadings (i.e. reduce fertilizer usage on residential properties)

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0229.1.001.003

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Chamber & CREDC supports efforts to restore the Chesapeake Bay as long as they do not impose unreasonable economic burdens on state and local government and the private sector and utilize the most cost-effective methods to achieve the required pollution reductions.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0230.1.001.022

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA Has Inappropriately Failed to Consider Cost, Cost-Effectiveness, and Cost Benefit

EPA's Draft TMDL allocates reductions among various source sectors. For example, EPA has made the determination in the Draft TMDL to shift allocations from Virginia's wastewater sector to the agriculture sector. Yet, it would appear that EPA's decision is not based in any way on cost issues. This is unacceptable, particularly in light of the fact that there is insufficient federal funding for the clean-up and state and local resources are strained in a way that they have not been for many decades.

Given this economic backdrop, EPA's decision to rewrite Virginia's Draft WIP and ignore potential economic impact on Bay dischargers in the allocation process is arbitrary if not irresponsible, especially in light of the fact that EPA stopped its effort to conduct a Use Attainability Analysis as part of this TMDL process.

The proposed TMDL also does not consider cost-effectiveness, sustainability, or overall environmental benefit. Because VAMWA believes that ancillary benefits of controls should be considered as a part of the development of this TMDL to produce increase overall environmental benefit, VAMWA contracted with Malcolm Pirnie to develop a Best Management Practices Benefit Planner (BMP-BP) model to examine this issue. The BMP-BP was peer-reviewed by Virginia Tech. This peer-reviewed model was designed to consider implementation costs, energy requirements, green house gas emissions, and ancillary environmental benefits (e.g. creation of wildlife habitat, flood protection, human health protection) to support environmental decision making.

VAMWA has used this model to compare EPA's recommendations for the York River basin with an alternative scenario that would achieve a similar level of nutrient reduction. The alternative scenario consisted of returning municipal point sources to Virginia's recently adopted wasteload allocations based on TN= 6 mg/L and TP=0.7 mg/L (down from typical secondary treatment levels of approximately TN = 18 to 25 mg/L and TP = 6 to 8 mg/L, and slightly higher than EPA's proposed backstop level of TN = 4 mg/L and TP = 0.3 mg/L), reducing urban stormwater BMP acreage by 50% and increasing agricultural BMPs by 20%. The results indicated the following:

- Reduced capital costs by approximately 50% (approximately \$1 billion)
- Reduced operation and maintenance (O+M) costs by 50% (\$32 million per year)
- Increased (improved) carbon sequestration by approximately 20%
- Significantly reduced green house gas (GHG) emissions
- Increased ancillary benefits associated with wildlife habitat, flood hazard protection, and base-flow projection.

This example demonstrates that greater environmental benefit can be achieved under Virginia's WIP than EPA's TMDL backstop allocations. EPA's decision to choose a higher-cost alternative and disregard a lower-cost alternative without any justification is arbitrary and capricious.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please see the following URL for EPA's statement on not extending the TMDL deadline.
http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StatementonBayTMDLCommentPeriod.pdf

Comment ID 0230.1.001.048

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

XI. EPA HAS INAPPROPRIATELY FAILED TO CONSIDER COST, COST-EFFECTIVENESS, AND COST BENEFIT

In order to withstand appellate scrutiny by a Federal Court, EPA must be able to meet the "arbitrary and capricious" standard of review for a federal agency action mandated by the Administrative Procedure Act. [FN81] Specifically, a Federal Court will "...hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law..." [FN82] The U.S. Court of Appeals for the D.C. Circuit explained that an action will be held arbitrary and capricious:

...if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise... [FN83]

EPA's failure to consider cost, cost-effectiveness, or cost-benefit in its Draft TMDL is the epitome of agency decision making that fails "to consider an important aspect of the problem." [FN84]

EPA's Draft TMDL allocates reductions among various source sectors. HRSD believes that considerations of cost, cost-effectiveness and cost-benefit are imperative parts of determining how to make these allocations. It is hard to imagine how EPA could have made a reasoned decision on this issue without considering cost, cost-effectiveness, and cost-benefit. EPA certainly should not have, given the scope of the Bay TMDL. In addition, a consideration of cost issues, in particular a careful review of which options are the most cost-effective, would benefit EPA, by providing more reasonable assurance for this TMDL. Cost-effective measures are much more likely to actually be implemented, and implemented on schedule, as compared to measures that are extraordinarily expensive. EPA's refusal to consider cost contradicts its own demands for reasonable assurance.

For example, EPA has made the determination in this Draft TMDL to shift allocations from Virginia's wastewater sector to the agriculture sector. Yet, it would appear that EPA's decision is not based in any way on cost issues. The record for this TMDL contains no information on the wisdom of mandating additional, costly reductions in wastewater in lieu of requiring additional BMPs by agricultural sources which are typically far more cost-effective. [FN85] This is unacceptable, particularly in light of the fact that there is insufficient federal funding for the clean-up and local resources are strained in a way that they have not been for many decades. [FN86]

Although economics at the state level have improved slightly over the last year, local governments continue to suffer with tightening local budgets and reduced revenues. According to an October, 2010 Research Brief from the National League of Cities ("NLC"), "Local and regional economies characterized by struggling housing markets, slow consumer spending, and high levels of unemployment are driving declines in city revenues." The October brief shows that concerns over local fiscal health remain at the highest level in the 25 year history of the survey. Two of the major issues plaguing cities are declines in personal property and sales tax. As a result, NLC concludes that:

2010 reflects a number of downward trends for city fiscal conditions. The impacts of the economic downturn are becoming increasingly evident in city projections for final 2010 revenues and expenditures, and in the actions taken in response to changing conditions. The local sector of the economy is now fully [sic] the midst of a downturn that will be

several years in length. The effects of a depressed real estate market, low levels of consumer confidence, and high levels of unemployment will likely play out in cities through 2010, 2011, and beyond. [FN87]

The National Association of Counties also conducted a survey of a sample counties across the United States in June, 2010 ("How are Counties Doing? An Economic Status Survey"). According to the Executive Summary: "This survey reveals that the downturn continues to be widespread with counties of all sizes feeling the crunch from many directions." Furthermore, "[c]ounties report that they are using furloughs, layoffs and service curtailment to help reduce budgets that in many cases remain problematic because of continuing shortfalls." [FN88]

A. Case Study Demonstration: James River Basin

The James River basin alone faces extraordinary costs if EPA's allocations are finalized. As the knee-of-the-curve below shows, it would cost over \$10 billion more on the James to comply with EPA's Draft TMDL allocations for chlorophyll-a.

<Figure 11: "Knee-of-the Curve Analysis for James River Chlorophyll-a WQS" on page 59 of Comment Letter EPA-R03-OW-2010-0736-0230>

Figure 11 shows that the cost of the Tributary Strategy is approximately \$9 Billion. In addition, the Figure shows the estimated capital costs of attaining the chlorophyll-a criteria against the percent attainment rate. The capital costs include estimates for basin-wide wastewater treatment plant upgrades, agricultural BMPs, and urban runoff controls necessary to meet the allocations identified by EPA for the scenarios identified in Figure 11. The wastewater treatment plant capital costs are a function of design flows and level of treatment (biological nutrient removal, enhanced nutrient removal and limit of technology). Agricultural capital costs are based on BMP unit cost per acre and the BMP assumptions used in the Phase 5.3 Model. The urban runoff capital costs [FN89] are based on the performance associated with the runoff reduction method for an estimated amount of retrofit controls that could be installed in a locality, which represents only a portion of the urban runoff costs. The costs for the remainder of the urban runoff reductions needed to meet the allocations would be achieved with stormwater capture/storage and reuse. The estimated capital costs were prepared for the following EPA Scenarios:

- '91-'00 Base Scenario: Point "A" represents the James River TN and TP loading of 36.9 and 3.3 million pounds per year, respectively.
- EPA's Tributary Strategy: Point "B" represents the James River TN and TP portion of the Bay-wide loading, which is 27.5 and 3.3 million pounds per year, respectively.
- EPA's James Chl-a Compliance: Point "C" represents the James River TN and TP loading of 23.5 and 2.35 million pounds per year, respectively. EPA has selected this scenario as the basis for compliance with the James River chlorophyll-a criteria. EPA also refers to this scenario as "James Level of Effort at ½ Potomac". In the Draft TMDL (Appendix J), EPA states "In the James, the nutrient loads are equivalent to the level of effort half way between Virginia's portion of the Potomac and the James for the 190/12 Loading Scenario." In other words, EPA is referring to a new theoretical scenario that is more stringent than the Virginia Regulations as to the James River but not quite as stringent as Virginia's Regulations require for the Potomac River, which have a far greater impact on Bay water quality.

- E3 (Everything, Everywhere, by Everybody): Point "D" represents the James River TN and TP loading of 16.1 and 1.5 million pounds per year, respectively. EPA considers this to be the "theoretical maximum levels of managed controls on all pollutant load sources". There are no cost and few physical limitations to implementing controls for point and nonpoint sources that are recognized in the E3 scenario. This scenario is used with the No-Action scenario to define the "controllable" loads, i.e., the difference between No-Action and E3 loads." See Draft TMDL at Appendix J.

The knee-of-the-curve analysis determines where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. There is a steep inflection at Point "B" that represents the knee-of-the-curve. Any reduction beyond Point "B" lacks a viable cost-to-benefit ratio and does not reflect a reasonable benefit. EPA has selected Point "C" as the basis for the James River compliance with the chlorophyll-a criteria, which is about half way between Point "B" and EPA's E3 scenario (Point "D"). If one assumes that the model predictions are accurate (about which there is substantial doubt), at Point "B", the James River would be 93 to 94 percent compliant with chlorophyll-a criteria compared to 99 percent at Point "C." However, the true difference in chlorophyll model output between Points "B" and "C" is only 2 to 3 g/L (three parts in a billion). Additionally, the sampling and testing accuracies for physical water measurements is 1 to 3 g/L. In other words, even if the loadings between Points "B" and "C" were achieved, it is unlikely that the difference in James River chlorophyll-a concentrations could be measured. The difference in the estimated cost of achieving the loadings between Points "B" and "C," on the other hand, is over \$10 billion- a sum that cannot only be measured, but will be paid by Virginians, if EPA's Draft TMDL is adopted as is on this issue.

In summary, it is incumbent upon EPA to reconsider the basis for the James River allocations considering the magnitude of the costs of attaining levels of load reductions required to produce a difference in modeled chlorophyll-a concentrations so small that they cannot be reliably measured. Further, it is incumbent upon EPA to consider these staggering costs as it finalizes its TMDL. At a minimum, EPA should not pass the knee-of-the-curve identified at Point "B" of the above graph. Assuming there is any real water quality improvement beyond Point "B," it would not be cost effective, could not be physically measured, and could not be reasonably attained. The only reasonable response is to set James River basin allocations based on the Tributary Strategy allocations.

Given this economic backdrop and weaknesses in the model's predictive abilities at such a small scale, [FN90] HRSD cannot begin to understand EPA's decision to sidestep discussing the potential economic impact of the Bay TMDL on Bay dischargers. Furthermore, as noted above, EPA has said that it will not consider requests for a UAA to determine the feasibility of this TMDL. EPA's determination that it will take a lawful option off the table to consider cost-related issues and impacts is indefensible.

B. Case Study Demonstration: York River Basin Agricultural management practices include most of the practices that EPA and others (e.g., Chesapeake Bay Commission, 2004) have identified as the most-cost effective, including nutrient management, conservation tillage, cover crops, and riparian buffers. Compared to many urban and wastewater-based practices, these practices provide much higher levels of ancillary environmental benefits such as wildlife habitat, stream habitat protection, flood control, and greenhouse gas reduction (VAMWA, 2010). To illustrate these points, Appendix 43 presents a case study of alternative nutrient controls for the York River basin using the Virginia Tech peer reviewed BMP Benefit Planner ver. 1.1 (Malcolm Pirnie, 2010). For the case study the above referenced model was used to compare EPA's recommendations for the York River basin with an alternative scenario that would achieve a similar level of nutrient reduction. The alternative scenario consisted of returning municipal point sources to existing requirements (TN= 6 mg/L, TP=0.7 mg/L @ design flows), reducing urban storm water BMP acreage by 50% and

increasing agricultural BMPs by 20%. The results indicated that the following:

- Reduced capital costs by approximately 50% (~\$1B)
- Reduced operation and maintenance (O+M) costs by 50% (\$32M/yr)
- Increased carbon sequestration by approximately 20%
- Significantly reduced green house gas (GHG) emissions
- Increased ancillary benefits associated with wildlife habitat, flood hazard protection, and base-flow projection

This case study is significant because it demonstrates that greater environmental benefit can be achieved at significantly lower cost if flexibility is allowed in the TMDL. EPA's decision to choose a higher-cost alternative and disregard a lower-cost alternative without any justification is arbitrary and capricious.

This case study approach is consistent with the intent of EPA's Healthy Watersheds Initiative. This initiative advocates for a holistic approach to management that includes geomorphology, landscape condition, hydrology, habitat, and biological integrity (http://water.epa.gov/learn/training/wacademy/upload/2010_10_13_slides.pdf).

EPA has contradicted its own concepts with the Bay TMDL by a narrowing its focus to only nutrient loadings at the exclusion of other end-points important to healthy watersheds.

The monitoring data also indicates that a focus on non-point sources will offer greater potential for Bay improvement. The results of Williams and others (2010) indicate that the drought period of 1999 to 2002 coincided with improving bay-wide trends in most of the metrics that were analyzed. These results demonstrate that non-point source nutrient loads are the key drivers of Chesapeake Bay water quality rather than point sources. As such the TMDL must include more emphasis (not less, as suggested by the draft TMDL) on controlling non-point sources of pollution.

[FN81] 5 U.S.C. §500, et seq.

[FN82] 5 U.S.C. § 706(2)(A).

[FN83] *Eagle Broadcasting Group, Ltd. v. F.C.C.*, 563 F.3d 543, 551 (D.C. Cir. 2009) (emphasis added).

[FN84] EPA materials from April, 2009, show a willingness on EPA's part to consider affordability as a part of this process. See April 20-21, 2009 Presentation from B. Koroncai to PSC (Chesapeake Bay Water Quality Big Picture) at slide 13 ("An affordability assessment will be completed") (attached hereto as Appendix 31). Yet, EPA's Draft TMDL leaves the question of affordability entirely unaddressed.

[FN85] See attached *Cost-Effective Strategies for the Bay* (Chesapeake Bay Commission, December 2004) (attached hereto as Appendix 47).

[FN86] In November, 2009, the Governors of Virginia and Maryland wrote to the President asking that he consider the

need for federal assistance for Bay clean-up efforts (attached as Appendix 48). Note that the letter was written in response to the Executive Order strategy and reports. VAMWA submits that the financial need is even more dire now given the requirements of the Draft TMDL. See also June 15, 2010 Letter from Virginia Governor Robert E. McDonnell to Lisa P. Jackson, EPA Administrator (attached hereto as Appendix 19).

[FN87] October Research Brief at 7 (available online at http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB_CityFiscalConditions2010.pdf).

[FN88] Survey results available online at: <http://www.naco.org/research/pubs/Documents/Surveys/Research%20Surveys/How%20are%20Counties%20Doing%20An%20Economic%20Status%20Survey%20July%202010.pdf>

[FN89] Urban nutrient management was not included. The capital costs are based on meeting the waste load allocation for the Urban Runoff identified in Appendix Q-1 of the Draft TMDL.

[FN90] See earlier discussion regarding modeling issues at Section VII.

Response

A TMDL is not a federal mandate. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

For additional information on your comment regarding the James River please see the response to Comment 0436.1.001.027, 0288.1.001.016.

Please see the following URL for EPA's statement on why we are not extending the TMDL deadline. http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StatementonBayTMDLCommentPeriod.pdf

Comment ID 0232.1.001.003

Author Name: Deboer Jay

Organization: Virginia Association of Realtors

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0235.1.001.007

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

While the EPA may not be required to perform financial assessments under the Clean Water Act its decision to forego cost/benefit analyses is resulting in the development of unrealistic requirements that our citizens cannot afford.

In response to questions concerning program cost, EPA staffers have discussed affordability in general terms and suggested that local governments and citizens consider the benefit of a healthy Chesapeake Bay. The economic advantages of a clean Bay are not in dispute. The issue is whether the EPA TMDL, backstop measures and implementation schedule constitute the best approach to Bay cleanup. We question the merits of the program, not its goal. Is the EPA TMDL program achievable and cost effective? In lieu of any quantifiable EPA cost/benefit data, our regional planning district commission and our staff have had to analyze what information is available. In order to be fiscally responsible to our citizens, these analyses must include "worse case" scenarios, which appear to be the EPA backstop measures. In the absence of EPA data, given what information we do have, it is apparent that the TMDL program is overly burdensome, too costly, and likely unachievable.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0235.1.001.016

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

The EPA program is inordinately expensive, and the lack of OMB-type cost/benefit analyses or realistic program cost estimates is leading to overly burdensome requirements. Regardless of whether or not the Clean Water Act requires financial analysis, it is unconscionable not to provide an economic analysis of a program that will change the way of life of over 17 million people and fundamentally alter land development in 64,000 square miles.

Response

EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Please see the response to comment 0067.1.001.009 and Section 8 of the TMDL report which address backstops in the TMDL.

Comment ID 0238-cp.001.003

Author Name: Pangraze P.

Organization: Holladay Properties, Inc.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0245-cp.001.004

Author Name: Coulter Laurie

Organization: Virginia Crop Production Association, Inc. (VACPA)

Before moving forward with a finalized Bay TMDL, EPA must conduct a non-biased economic impact analysis. Experts

from land-grant universities from across the watershed could be called upon to evaluate the actual costs of meeting water quality standards for businesses, citizens, localities, states, and the federal government.

Response

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality with regards to stormwater and response to 0245-cp.001.003 for information on agriculture.

Comment ID 0251.1.001.003

Author Name: Duckett Robert

Organization: Peninsula Housing & Builders Association (PHBA)

It also appears apparent that the EPA has chosen to rush in this direction, heedless of its cost, because as we have learned, the EPA has chosen not to conduct a cost analysis for the Bay TMDL.

We strongly urge the EPA to conduct such a cost analysis. We strongly urge the EPA to slow down and take into account the significant concerns of the national housing industry, the business community, and numerous local governments affected by the economic impact the Bay TMDL. York County, one of our local governments, has learned that the estimated costs associated with implementing the TMDL would take up one-third of its existing budget.

Response

Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and economic benefits of improved water quality and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0252.1.001.011

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

we have a good relationship with Allegany County at the staff and elected official level at this time, the implications of the TMDL mandate process further limit municipal autonomy and create budget pressures that our tax base cannot reasonably bear.

Frostburg is already under consent order to address what was estimated to be a \$25M, 20-year program to separate its combined sewers, which began in 2003. The City has made a concerted effort to keep on track, and has received significant help from the State via MDE and the Federal government via EPA, CDBG, and even ARC funding. However, a significant local CSO surcharge has been levied and was recently increased to ensure that the City can remain on target. With new mandates on the horizon, the taxpayers in this small town are facing yet additional charges from this

mandate, on top of an expected increase in the Bay Restoration Fund assessments that sends money to MDE, and which we acknowledge have helped pay for our CSO efforts.

Response

EPA hears your concerns and thanks you for your comments on the Draft Chesapeake Bay TMDL and the efforts to address stormwater in your municipality. It is EPA's intention to reduce or remove some of the backstops and allow jurisdictions to implement their plans. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0253.1.001.003

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

The County's WWTP is in the process of being upgraded with nutrient removal technology. The current project consists of installing two new Enhanced Nutrient Removal basins and converting two existing Biological Nutrient Removal Basins to Enhanced Nutrient Removal Basins. This project will effectively increase ENR capacity to ensure continuous compliance with an annual average total nitrogen concentration of 5.0 mg/L. The total capital cost for this project (Phase 7) is approximately \$20,186,000. Previous projects and plant expansions (2000 through 2004) provided nutrient removal facilities to achieve compliance with an annual average total phosphorus concentration of 0.5 mg/L and an annual average total nitrogen concentration of 8.0 mg/L. Capital cost for these projects was approximately \$54,000,000. Capital costs do not include design and construction management fees. Additionally, the Operational and Maintenance costs associated with the facilities move from an "ammonia removal" facility to Enhanced Nutrient Removal is conservatively estimated to cost the County an additional \$1,500,000/year moving forward.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure.

Comment ID 0267.1.001.024

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

B. The Upper Susquehanna Coalition

Floods and high river flows following storms account for most of the nutrients and sediment loads carried in the Susquehanna River in New York State. Over the last ten or more years, the USC, with some assistance from the Clinic, has developed an innovative wetland and riparian corridor program. Wetlands absorb the energy of flood and storm waters and reduce pollutant loads. Riparian corridors are the last barrier against water quality degradation. The USC program aims to attenuate peak and stormwater flows and maintain the integrity of stream corridors. As a result, the transport of nutrient and sediment loads delivered from New York State is significantly reduced. EPA can enable similar achievements for the benefit of the Chesapeake Bay by directing Chesapeake Bay Program resources towards enhancing the capacity of USC and similar bodies in other states.

Recommendation:

- Because wetlands and riparian corridors are local responsibilities, EPA should support and foster the capacity of local communities, through technical providers such as the USC, to adopt technical and legal tools that protect wetlands and riparian corridors to control and limit nutrient and sediment transport to streams.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan. Please see response to 0501.1.001.005 for additional information on federal funding towards the Chesapeake Bay Watershed.

Comment ID 0267.1.001.027

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

In the likely event that natural gas drilling on the Marcellus Shale occurs in New York, it will be necessary for the state to expand enforcement of its water quality regulations to achieve its Bay TMDL allocations. A consistent theme in EPA's evaluation of New York's draft Phase I WIP is how the state will go about strengthening enforcement of the Clean Water Act. Given their technical expertise and strong relationship with rural New York communities, Soil and Water Conservation Districts can play many useful roles in accomplishing this task. For example, they can: (1) provide technical assistance to municipalities in reviewing Stormwater Pollution Prevention Plans (SWPPPs) required for new road construction sites; (2) act as thirdparty inspectors to assist municipalities in monitoring SWPPP compliance and to ensure that storm drainage best management practices are employed on access roads and pipeline right-of-ways; (3) assist local municipalities in delineating and protecting ecologically sensitive areas such as wetlands, which act to reduce pollutant transport to streams; and (4) assist gas companies in locating access roads so as to avoid such ecologically sensitive areas.

Technical providers such as New York's Soil and Water Conservation Districts are essential for successful TMDL implementation the New York portion of the Chesapeake Bay watershed. In areas where natural gas drilling may occur, EPA can limit the impacts of gas drilling activities on roads, and hence reduce pollutant loading, by enhancing the capacity of these local technical providers.

Response

The recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan. Please see response to 0501.1.001.005 for additional information on federal funding towards the Chesapeake Bay Watershed. Please see the response to 0190-cp.001.002 to address your comments on natural gas drilling.

Comment ID 0267.1.001.029

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

- EPA should direct greater institutional and financial support to local technical providers such as a state's SWCDs.

Response

EPA does not have the authority to dictate where a jurisdiction allocates its funding. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0267.1.001.031

Author Name: Bowman Cynthia

Organization: Cornell Law School Water Law Clinic

EPA should direct its education and outreach resources towards encouraging local communities to access and participate in online forums, such as that provided by the Clinic's blog, in order to quickly and easily share information about what works, what does not, and how to go about addressing water quality and quantity concerns in their jurisdictions.

Response

EPA is not able to direct funding to any project because EPA must follow the competitive process in accordance with the national program guidance. Information on these regulations can be found at Title 40 Code of Federal Regulations Section 30.43.

Comment ID 0280.1.001.005

Author Name: Newcomb Jim

Organization: Dorchester Soil Conservation District

The Dorchester Soil Conservation District has reviewed Maryland's Watershed Implementation Plan (WIP) and would like to make the following comments. In closing we would like to stress that all the planning in the world will not produce results if there is not the staff or resources available on the ground to implement the plan.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions. Future enhancements include addressing current short falls in resources and proposed strategies to increase resources.

Comment ID 0288.1.001.029

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

EPA HAS INAPPROPRIATELY FAILED TO CONSIDER COST, COST-EFFECTIVENESS, AND COST BENEFIT

In order to withstand appellate scrutiny by a Federal Court, EPA must be able to meet the "arbitrary and capricious" standard of review for a federal agency action mandated by the Administrative Procedure Act.[FN81] Specifically, a Federal Court will "...hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law..." [FN82] The U.S. Court of Appeals for the D.C. Circuit explained that an action will be held arbitrary and capricious:

...if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise... [FN83]

EPA's failure to consider cost, cost-effectiveness, or cost-benefit in its Draft TMDL is the epitome of agency decisionmaking that fails "to consider an important aspect of the problem." [FN84]

EPA's Draft TMDL allocates reductions among various source sectors. VAMWA believes that considerations of cost, cost-effectiveness and cost-benefit are imperative parts of determining how to make these allocations. It is hard to imagine how EPA could have made a reasoned decision on this issue without considering cost, cost-effectiveness, and cost-benefit. EPA certainly should not have, given the scope of the Bay TMDL. In addition, a consideration of cost issues, in particular a careful review of which options are the most cost-effective, would benefit EPA, by providing more reasonable assurance for this TMDL. Cost-effective measures are much more likely to actually be implemented, and implemented on schedule, as compared to measures that are extraordinarily expensive. EPA's refusal to consider cost contradicts its own demands for reasonable assurance.

For example, EPA has made the determination in this Draft TMDL to shift allocations from Virginia's wastewater sector to the agriculture sector. Yet, it would appear that EPA's decision is not based in any way on cost issues. The record for this TMDL contains no information on the wisdom of mandating additional, costly reductions in wastewater in lieu of requiring additional BMPs by agricultural sources which are typically far more cost-effective.[FN85] This is unacceptable, particularly in light of the fact that there is insufficient federal funding for the clean-up and local resources are strained in a way that they have not been for many decades.[FN86]

Although economics at the state level have improved slightly over the last year, local governments continue to suffer with tightening local budgets and reduced revenues. According to an October, 2010 Research Brief from the National League of Cities ("NLC"), "Local and regional economies characterized by struggling housing markets, slow consumer spending, and high levels of unemployment are driving declines in city revenues." The October brief shows that concerns over local fiscal health remain at the highest level in the 25 year history of the survey. Two of the major issues plaguing cities are declines in personal property and sales tax. As a result, NLC concludes that:

2010 reflects a number of downward trends for city fiscal conditions. The impacts of the economic downturn are becoming increasingly evident in city projections for final 2010 revenues and expenditures, and in the actions taken in response to changing conditions. The local sector of the economy is now fully [sic] the midst of a downturn that will be several years in length. The effects of a depressed real estate market, low levels of consumer confidence, and high levels of unemployment will likely play out in cities through 2010, 2011, and beyond.[FN87]

The National Association of Counties also conducted a survey of a sample counties across the United States in June, 2010 ("How are Counties Doing? An Economic Status Survey"). According to the Executive Summary: "This survey reveals that the downturn continues to be widespread with counties of all sizes feeling the crunch from many directions." Furthermore, "[c]ounties report that they are using furloughs, layoffs and service curtailment to help reduce budgets that in many cases remain problematic because of continuing shortfalls." [FN88]

A. Case Study Demonstration: James River Basin

The James River basin alone faces extraordinary costs if EPA's allocations are finalized. As the knee-of-the-curve below shows, it would cost over \$10 billion more on the James to comply with EPA's Draft TMDL allocations for chlorophyll-a.

[Figure 11: Knee-of-the-Curve Analysis for James River Chlorophyll-a WQS. Please see the original document 0288.1]

Figure 11 shows that the cost of the Tributary Strategy is approximately \$9 Billion. In addition, the Figure shows the estimated capital costs of attaining the chlorophyll-a criteria against the percent attainment rate. The capital costs include estimates for basin-wide wastewater treatment plant upgrades, agricultural BMPs, and urban runoff controls necessary to meet the allocations identified by EPA for the scenarios identified in Figure 11. The wastewater treatment plant capital costs are a function of design flows and level of treatment (biological nutrient removal, enhanced nutrient removal and limit of technology). Agricultural capital costs are based on BMP unit cost per acre and the BMP assumptions used in the Phase 5.3 Model. The urban runoff capital costs [FN89] are based on the performance associated with the runoff reduction method for an estimated amount of retrofit controls that could be installed in a locality, which represents only a portion of the urban runoff costs. The costs for the remainder of the urban runoff reductions needed to meet the allocations would be achieved with stormwater capture/storage and reuse. The estimated capital costs were prepared for the following EPA Scenarios:

-- '91-'00 Base Scenario: Point "A" represents the James River TN and TP loading of 36.9 and 3.3 million pounds per year, respectively.

--EPA's Tributary Strategy: Point "B" represents the James River TN and TP portion of the Bay-wide loading, which is 27.5 and 3.3 million pounds per year, respectively.

--EPA's James Chl-a Compliance: Point "C" represents the James River TN and TP loading of 23.5 and 2.35 million pounds per year, respectively. EPA has selected this scenario as the basis for compliance with the James River chlorophyll-a criteria. EPA also refers to this scenario as "James Level of Effort at ½ Potomac". In the Draft TMDL (Appendix J), EPA states "In the James, the nutrient loads are equivalent to the level of effort half way between Virginia's portion of the Potomac and the James for the 190/12 Loading Scenario." In other words, EPA is referring to a new theoretical scenario that is more stringent than the Virginia Regulations as to the James River but not quite as stringent as Virginia's Regulations require for the Potomac River, which have a far greater impact on Bay water quality.

--E3 (Everything, Everywhere, by Everybody): Point "D" represents the James River TN and TP loading of 16.1 and 1.5 million pounds per year, respectively. EPA considers this to be the "theoretical maximum levels of managed controls on all pollutant load sources". There are no cost and few physical limitations to implementing controls for point and nonpoint sources that are recognized in the E3 scenario. This scenario is used with the No-Action scenario to define the "controllable" loads, i.e., the difference between No-Action and E3 loads. See Draft TMDL at Appendix J.

The knee-of-the-curve analysis determines where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. There is a steep inflection at Point "B" that represents the knee-of-the-curve. Any reduction beyond Point "B" lacks a viable cost-to-benefit ratio and does not reflect a reasonable benefit. EPA has selected Point "C" as the basis for the James River compliance with the chlorophyll-a criteria, which is about half way between Point "B" and EPA's E3 scenario (Point "D"). If one assumes that the model predictions are accurate (about which there is substantial doubt), at Point "B", the James River would be 93 to 94 percent compliant with chlorophyll-a criteria compared to 99 percent at Point "C." However, the true difference in chlorophyll model output between Points "B" and "C" is only 2 to 3 g/L (three parts in a billion). Additionally, the sampling and testing accuracies for physical water measurements is 1 to 3 g/L. In other words, even if the loadings between Points "B" and "C" were achieved, it is unlikely that the difference in James River chlorophyll-a concentrations could be measured. The difference in the estimated cost of achieving the loadings between Points "B" and "C," on the other hand, is over \$10 billion- a sum that cannot only be measured, but will be paid by Virginians, if EPA's Draft TMDL is adopted as is on this issue.

In summary, it is incumbent upon EPA to reconsider the basis for the James River allocations considering the magnitude of the costs of attaining levels of load reductions required to produce a difference in modeled chlorophyll-a concentrations so small that they cannot be reliably measured. Further, it is incumbent upon EPA to consider these staggering costs as it finalizes its TMDL. At a minimum, EPA should not pass the knee-of-the-curve identified at Point "B" of the above graph. Assuming there is any real water quality improvement beyond Point "B", it would not be cost effective, could not be physically measured, and could not be reasonably attained. The only reasonable response is to set James River basin allocations based on the Tributary Strategy allocations.

Given this economic backdrop and weaknesses in the model's predictive abilities at such a small scale,[FN90] VAMWA cannot begin to understand EPA's decision to sidestep discussing the potential economic impact of the Bay TMDL on Bay dischargers. Furthermore, as noted above, EPA has said that it will not consider requests for a UAA to determine the feasibility of this TMDL. EPA's determination that it will take a lawful option off the table to consider cost-related issues and impacts is indefensible.

B. Case Study Demonstration: York River Basin

Agricultural management practices include most of the practices that EPA and others (e.g., Chesapeake Bay Commission, 2004) have identified as the most-cost effective, including nutrient management, conservation tillage, cover crops, and riparian buffers. Compared to many urban and wastewater-based practices, these practices provide much higher levels of ancillary environmental benefits such as wildlife habitat, stream habitat protection, flood control, and greenhouse gas reduction (VAMWA, 2010). To illustrate these points, Appendix 43 [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A43] presents a case study of alternative nutrient controls for the York River basin using the Virginia Tech peer reviewed BMP Benefit Planner ver. 1.1 (Malcolm Pirnie, 2010). For the case study the above referenced model was used to compare EPA's recommendations

for the York River basin with an alternative scenario that would achieve a similar level of nutrient reduction. The alternative scenario consisted of returning municipal point sources to existing requirements (TN= 6 mg/L, TP=0.7 mg/L @ design flows), reducing urban storm water BMP acreage by 50% and increasing agricultural BMPs by 20%. The results indicated that the following:

- Reduced capital costs by approximately 50% (~\$1B)
- Reduced operation and maintenance (O+M) costs by 50% (\$32M/yr)
- Increased carbon sequestration by approximately 20%
- Significantly reduced green house gas (GHG) emissions
- Increased ancillary benefits associated with wildlife habitat, flood hazard protection, and base-flow projection

This case study is significant because it demonstrates that greater environmental benefit can be achieved at significantly lower cost if flexibility is allowed in the TMDL. EPA's decision to choose a higher-cost alternative and disregard a lower-cost alternative without any justification is arbitrary and capricious.

This case study approach is consistent with the intent of EPA's Healthy Watersheds Initiative. This initiative advocates for a holistic approach to management that includes geomorphology, landscape condition, hydrology, habitat, and biological integrity (http://water.epa.gov/learn/training/wacademy/upload/2010_10_13_slides.pdf).

EPA has contradicted its own concepts with the Bay TMDL by a narrowing its focus to only nutrient loadings at the exclusion of other end-points important to healthy watersheds.

The monitoring data also indicates that a focus on non-point sources will offer greater potential for Bay improvement. The results of Williams and others (2010) indicate that the drought period of 1999 to 2002 coincided with improving bay-wide trends in most of the metrics that were analyzed. These results demonstrate that non-point source nutrient loads are the key drivers of Chesapeake Bay water quality rather than point sources. As such the TMDL must include more emphasis (not less, as suggested by the draft TMDL) on controlling non-point sources of pollution.

[FN81] 5 U.S.C. §500, et seq.

[FN82] 5 U.S.C. § 706(2)(A).

[FN83] *Eagle Broadcasting Group, Ltd. v. F.C.C.*, 563 F.3d 543, 551 (D.C. Cir. 2009) (emphasis added).

[FN84] EPA materials from April, 2009, show a willingness on EPA's part to consider affordability as a part of this process. See April 20-21, 2009 Presentation from B. Koroncai to PSC (Chesapeake Bay Water Quality Big Picture) at slide 13 ("An affordability assessment will be completed") (attached hereto as Appendix 31). Yet, EPA's Draft TMDL leaves the question of affordability entirely unaddressed.

[FN85] See attached Cost-Effective Strategies for the Bay (Chesapeake Bay Commission, December 2004) (attached hereto as Appendix 47). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A47]

[FN86] In November, 2009, the Governors of Virginia and Maryland wrote to the President asking that he consider the need for federal assistance for Bay clean-up efforts (attached as Appendix 48) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A48]. Note that the letter was written in response to the Executive Order strategy and reports. VAMWA submits that the financial need is even more dire now given the requirements of the Draft TMDL. See also June 15, 2010 Letter from Virginia Governor Robert E. McDonnell to Lisa P. Jackson, EPA Administrator (attached hereto as Appendix 19). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A19]

[FN87] October Research Brief at 7 (available online at http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB_CityFiscalConditions2010.pdf).

[FN88] Survey results available online at:
<http://www.naco.org/research/pubs/Documents/Surveys/Research%20Surveys/How%20are%20Counties%20Doing%20An%20Economic%20Status%20Survey%20July%202010.pdf>

[FN89] Urban nutrient management was not included. The capital costs are based on meeting the waste load allocation for the Urban Runoff identified in Appendix Q-1 of the Draft TMDL.

[FN90] See earlier discussion regarding modeling issues at Section VII.

Response

Please see response to comment 0230.1.001.048 to address the concerns in this comment.

Comment ID 0293.1.001.002

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA Has Inappropriately Failed to Consider Cost, Cost-Effectiveness, and Cost-Benefit

Of particular relevance to Urban Stormwater and thus eventually to MS4s, EPA's Draft TMDL fails to adequately consider a critical aspect relating to whether or not its TMDL will be successful for Bay restoration, namely cost and feasibility, as well as cost-effectiveness and cost-benefit. VAMSA has similar concerns regarding the WIP as to Urban Stormwater.

An expert national engineering firm has estimated the cost to Virginia's MS4 localities to restore 50% of existing untreated impervious area over a 15 year term (the level and manner of effort assumed by EPA in its Draft TMDL at

page 8-14 to 8-15). The low estimated per household, annual cost is \$678 in 2011 and possibly as high as \$1,717 in 2025.[FN1] Further, these staggering figures are only for the specific retrofits considered in EPA's plan and thus omit other significant existing and future costs for other MS4 permit obligations (such as under existing permits and potentially increased requirements under future permits and other TMDLs) and for general maintenance of the existing stormwater system.

On a state-wide basis (for localities in the Bay Watershed), a second expert engineering firm has confirmed the extraordinary costs for urban stormwater.[FN2] The firm has estimated the total capital costs for Virginia localities in the Bay Watershed to be approximately \$39.4 billion, with an annual cost (including O&M) of \$4.2 billion. Based upon a typical industry approach to calculating stormwater bills, this translates to approximately \$1,200 per year for a representative residential house, \$11,100 per year for a representative small business (e.g., convenience store or gas station), \$73,800 per year for a representative neighborhood shopping center, \$24,600 per year for a representative church or place of worship, and \$1.1 million per year for a representative regional mall. This would place a high burden on a household based upon median household income (approximately 2.0% to 2.7%).

Elsewhere, EPA has estimated that the cost for retrofits for existing MS4s may be \$7.9 billion per year for the Bay TMDL watershed. Furthermore, the nationally-recognized Center for Watershed Protection has estimated urban retrofit costs at on the order of \$88,000 per acre.

Given the current economic environment and the level of associated costs, VAMSA cannot begin to understand EPA's decision to sidestep discussing the potential economic impact of the Bay TMDL on the residents of the Bay watershed, especially in light of the fact that EPA stopped its effort to conduct a Use Attainability Analysis as part of this TMDL process.

[FN1] Stormwater Retrofit Cost Estimate Case Study, D. Mason and C. Tabor, CDM (Oct. 12, 2010) (attached as Appendix 1 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]). VAMSA hereby incorporates Appendix 1 by reference to these comments (all of VAMSA's Appendices are incorporated hereto by reference). Additionally, VAMSA incorporates by reference all EPA files or documents, no matter the form, and all materials from EPA Chesapeake Bay committees or subcommittees pertaining to Bay clean-up efforts. VAMSA is aware that a growing number of localities and planning district commissions throughout Virginia may have similar concerns and to the extent that such entities file comments on the Draft TMDL or WIP, VAMSA recommends that EPA and Virginia carefully consider those comments as well.

[FN2] Range of Estimated Costs for Virginia Urban Runoff (Stormwater), E. Cronin, Greeley & Hansen (Nov., 2010) (attached as Appendix 1 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]).

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA

established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0293.1.001.009

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA HAS INAPPROPRIATELY FAILED TO CONSIDER COST, COST-EFFECTIVENESS, AND COST-BENEFIT

Available cost estimates indicate that the Bay TMDL could have cost impacts on the order of \$700 to \$1,800 per household per year. Yet, EPA has failed to consider this significant issue in its Draft TMDL.

In order to withstand appellate scrutiny by a Federal Court, EPA must be able to meet the "arbitrary and capricious" standard of review for a federal agency action mandated by the Administrative Procedure Act.[FN3] Specifically, a Federal Court will "...hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law..."[FN4] The U.S. Court of Appeals for the D.C. Circuit explained that an action will be held arbitrary and capricious:

...if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise... [FN5]

Given that one of the main limitations on fully accomplishing Bay restoration has been the tremendous cost, EPA's failure to consider cost, cost-effectiveness, or cost-benefit in its Draft TMDL is the epitome of agency decision-making that fails "to consider an important aspect of the problem." [FN6]

EPA's Draft TMDL allocates reductions among various source sectors. VAMSA believes that considerations of cost, cost-effectiveness and cost-benefit are imperative parts of determining how to make these allocations. It is hard to imagine how EPA could have made a reasoned decision on this issue without considering cost, cost-effectiveness, and cost-benefit. EPA certainly should not have, given the scope of the Bay TMDL. In addition, a consideration of cost issues, in particular a careful review of which options are the most cost-effective, would benefit EPA, by providing more reasonable assurance for this TMDL. Cost-effective measures are much more likely to actually be implemented, and implemented on schedule, as compared to measures that are extraordinarily expensive. EPA's refusal to consider cost contradicts its own demands for reasonable assurance. This is unacceptable, particularly in light of the fact that there is insufficient federal funding for the clean-up and local resources are strained in a way that they have not been for many decades.[FN7]

Although economics at the state level have improved slightly over the last year, local governments continue to suffer with tightening local budgets and reduced revenues. According to an October, 2010 Research Brief from the National League of Cities ("NLC"), "Local and regional economies characterized by struggling housing markets, slow consumer spending, and high levels of unemployment are driving declines in city revenues." The October brief shows that concerns over local fiscal health remain at the highest level in the 25 year history of the survey. Two of the major issues plaguing cities are declines in personal property and sales tax. As a result, NLC concludes that:

2010 reflects a number of downward trends for city fiscal conditions. The impacts of the economic downturn are becoming increasingly evident in city projections for final 2010 revenues and expenditures, and in the actions taken in response to changing conditions. The local sector of the economy is now fully [sic] the midst of a downturn that will be several years in length. The effects of a depressed real estate market, low levels of consumer confidence, and high levels of unemployment will likely play out in cities through 2010, 2011, and beyond.[FN8]

The National Association of Counties also conducted a survey of sample counties across the United States in June, 2010 ("How are Counties Doing? An Economic Status Survey"). According to the Executive Summary: "This survey reveals that the downturn continues to be widespread with counties of all sizes feeling the crunch from many directions." Furthermore, "[c]ounties report that they are using furloughs, layoffs and service curtailment to help reduce budgets that in many cases remain problematic because of continuing shortfalls." [FN9]

In short, Virginia's local governments are in no position to fund an expensive and mandatory restoration/retrofit program. Of course, this begs the question: How much would it cost to implement EPA's urban restoration/retrofit proposal?

VAMSA submits for consideration by EPA and the State the attached Technical Memo by a national engineering firm with expertise in stormwater management.[FN10] The Technical Memo estimates urban stormwater costs for Bay TMDL implementation on an annual per household cost basis. For a level of effort that approximates that of the Draft TMDL, the analysis developed cost estimates to restore 50% of existing untreated impervious area over a 15 year term (the approach used by EPA in its Draft TMDL). The result was an annual per household cost from a low of \$678 per year in 2011 to a high of \$1,711 in 2025.

The Technical Memo's cost estimate is only for urban retrofits; it does not include costs for stormwater management in unregulated areas or to pay for other costs associated with existing MS4 programs. Thus, total stormwater management cost increases would presumably be considerably higher factoring in increasing requirements of MS4 permits, costs of implementing other TMDLs beyond the Bay TMDL, and generally increasing liability for infrastructure renewal.

On a state-wide basis (for localities in the Bay Watershed), a second expert engineering firm has confirmed the extraordinary costs for urban stormwater. [FN11] The firm has estimated the total capital costs for Virginia localities in the Bay Watershed to be approximately \$39.4 billion, with an annual cost (including O&M) of \$4.2 billion. Based upon a typical industry approach to calculating stormwater bills, this translates to approximately \$1,200 per year for a representative residential house, \$11,100 per year for a representative small business (e.g., convenience store or gas station), \$73,800 per year for a representative neighborhood shopping center, \$24,600 per year for a representative church or place of worship, and \$1.1 million per year for a representative regional mall. This would place a high burden on a household based upon median household income (approximately 2.0% to 2.7%).

Elsewhere, EPA has estimated that the cost for retrofits for existing MS4s may be \$7.9 billion per year for the Bay TMDL watershed.[FN12]

The nationally-recognized Center for Watershed Protection has estimated urban retrofit costs at on the order of \$88,000 per acre.[FN13]

A. Case Study Demonstration: York River Basin

Agricultural management practices include most of the practices that EPA and others (e.g., Chesapeake Bay Commission, 2004) have identified as the most-cost effective, including nutrient management, conservation tillage, cover crops, and riparian buffers. Compared to many urban and wastewater-based practices, these practices provide much higher levels of ancillary environmental benefits such as wildlife habitat, stream habitat protection, flood control, and greenhouse gas reduction. To illustrate these points, Appendix 5 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001] presents a case study of alternative nutrient controls for the York River basin using the Virginia Tech peer reviewed BMP Benefit Planner ver. 1.1 (Malcolm Pirnie, 2010). For the case study the above referenced model was used to compare EPA's recommendations for the York River basin with an alternative scenario that would achieve a similar level of nutrient reduction. The alternative scenario consisted of returning municipal point sources to existing requirements (TN= 6 mg/L, TP=0.7 mg/L, design flows), reducing urban storm water BMP acreage by 50% and increasing agricultural BMPs by 20%. The results indicated the following:

- Reduced capital costs by approximately 50% (~\$1B)
- Reduced operation and maintenance (O+M) costs by 50% (\$32M/yr)
- Increased carbon sequestration by approximately 20%
- Significantly reduced green house gas (GHG) emissions
- Increased ancillary benefits associated with wildlife habitat, flood hazard protection, and base-flow projection

VAMSA is providing this example not because we agree with the specific inputs (in particular the urban stormwater aspects), but to make the general point that it is possible to derive a greater environmental benefit at a lower cost if flexibility is allowed in the TMDL. EPA should consider these types of cost issues and options before it finalizes the Bay TMDL. To do otherwise is indefensible.

[FN3] 5 U.S.C. §500, et seq.

[FN4] 5 U.S.C. §706(2)(A).

[FN5] *Eagle Broadcasting Group, Ltd. v. F.C.C.*, 563 F.3d 543, 551 (D.C. Cir. 2009) (emphasis added).

[FN6] EPA materials from April, 2009, show a willingness on EPA's part to consider affordability as a part of this process. See April 20-21, 2009 Presentation from B. Koroncai to PSC (Chesapeake Bay Water Quality Big Picture) at slide 13 ("An affordability assessment will be completed") (attached hereto as Appendix 2 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]). Yet, EPA's Draft TMDL leaves the

question of affordability entirely unaddressed.

[FN7] In November, 2009, the Governors of Virginia and Maryland wrote to the President asking that he consider the need for federal assistance for Bay clean-up efforts (attached as Appendix 3 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]). Note that the letter was written in response to the Executive Order strategy and reports. VAMSA submits that financial need is even more dire now given the requirements of the Draft TMDL. See also June 15, 2010 Letter from Virginia Governor Robert E. McDonnell to Lisa P. Jackson, EPA Administrator (attached hereto as Appendix 4 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]).

[FN8] October Research Brief at 7 (available online at http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB_CityFiscalConditions2010.pdf).

[FN9] Survey results available online at:
<http://www.naco.org/research/pubs/Documents/Surveys/Research%20Surveys/How%20are%20Counties%20Doing%20An%20Economic%20Status%20Survey%20July%202010.pdf>

[FN10] See Appendix 1 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]).

[FN11] See Appendix 1 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]).

[FN12] The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay: A Revised Report Fulfilling Section 202a of Executive Order 13508 (Nov. 24, 2009).

[FN13] See Appendix 1 [Comment Letter refers to additional information in the form of an attachment. See comment 0574.1.001.001]).

Response

Please see response to comment 0230.1.001.048 to address the concerns in this comment.

Comment ID 0299.1.001.001

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

I am writing on behalf of the INVISTA - Waynesboro manufacturing facility located in Waynesboro, Virginia. INVISTA's Waynesboro site makes a significant contribution to the Virginia economy. As of August 31, 2010, INVISTA employed approximately 500 individuals at the Waynesboro site - not including outside contractors - in a wide variety of roles that include management, administration, R&D, utilities, maintenance, mechanical, project management, and production

jobs. Based on an economic multiplier of 4.2 for fiber manufacturing in Virginia (as calculated by the U.S. Dept. of Commerce Bureau of Economic Analysis), INVISTA Waynesboro is responsible for the effect of creating more than 2,000 jobs in the Virginia economy

Response

EPA acknowledges the comment.

Comment ID 0300.1.001.003

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

We understand that more detail will be provided in the Phase II WIP and revised TMDL. However, the cost implications of this program are too significant to wait until that time. Therefore, we request that EPA work in concert with the states and with input from stakeholders to conduct a comprehensive cost assessment related to WIP and TMDL implementation.

2. Concerns about the WIP implementation cost and the cost-benefit ratio of the water quality benefits. VDOT requests that EPA and the states analyze the cost implications of the draft WIP and draft TMDL for the various source sectors. VDOT also requests that the draft WIP and TMDL provide sufficient detail so that the costs of compliance can be understood by the regulated community within each source sector. For example, VDOT understands that the cost for Virginia to comply with the 2005 Tributary Strategy program (prepared as part of the 2000 Chesapeake Bay Agreement) was estimated to be about \$10 billion over a 15-year period (projected in 2005). As you know, the Tributary Strategy Program would fall short of meeting the target allocations required by the WIP and Chesapeake Bay TMDL. Therefore, the cost to Virginia for implementing the approved WIP/TMDL will exceed the \$10 billion estimated for the Tributary Strategy Plan, undoubtedly by a significant amount. The cost estimates for the Tributary Strategy Plan were based on 2005 dollars and the additional reductions required in nutrient and sediment loading to achieve the WIP/TMDL allocations would be significantly more costly per pound of removal compared to the Tributary Strategy Plan. The Hampton Roads Planning District Commission (HRPDC) conducted a preliminary cost analysis in 2010 for the 16 local governments in southeastern Virginia and concluded that the Chesapeake Bay TMDL implementation cost for the 16 local governments would be about \$679 million per year or about 10 percent of their total annual revenue. They also estimated that the capital cost of nutrient removal for the urban stormwater sector would be about \$15,000 per pound of nutrient removal. EPA's 2005 publication entitled National Management Measures to Control Non-point Source Pollution from Urban Areas estimates that the annual maintenance costs for typical BMPs used for nutrient removal to be \$2,200 for a sand filter and \$3,000-4,000 for a bioretention basin. According to the National Research Council publication entitled Urban Stormwater Management in the United States (2008), retrofitting an existing urban area with stormwater management designed for nutrient removal can be as high as \$850,000 per city block. According to the Center for Watershed Protection, the cost of stormwater retrofits per acre of treatment can range from \$40,000-120,000. All of these cost estimates reinforce the significant capital costs and operations and maintenance costs that will be necessary to implement the Chesapeake Bay TMDL. During a time of extreme budget challenges, VDOT and other affected public agencies cannot afford the costs of implementing the WIP/TMDL, without significant state/federal funding. In addition,

because the draft Virginia WIP and Chesapeake Bay TMDL is largely programmatic in its proposed initiatives, it is impossible for any agency to effectively estimate the magnitude of the cost implications of implementation. In our opinion, the lack of a comprehensive cost assessment and failure to identify and include specific funding mechanisms in the WIP and TMDL decreases the potential for successful implementation of these initiatives.

According to the EPA's draft TMDL, "the CWA authorizes EPA to provide funding to the Bay watershed jurisdictions through various sources, including but not limited to Chesapeake Bay Implementation grants, Non-point Source Control grants, Section 106 grants for water pollution control programs, the Clean Water State Revolving Loan Fund, the American Recovery and Reinvestment Act, and various grant programs targeting Chesapeake Bay restoration. The funding will help the jurisdictions meet their pollutant reduction targets." (Page 7-3 of the draft TMDL for the Chesapeake Bay). According to the EPA website on the Chesapeake Bay Executive Order (EO), more than \$490 million is targeted in FY 2011 toward meeting the outcomes and goals set forth in the EO Strategy, contingent upon appropriations by Congress. If the stated intent of Congress through the Clean Water Act is to provide funding to cover the WIP/TMDL costs, then EPA must analyze the cost of TMDL implementation and identify additional funding mechanisms to offset the implementation cost to the affected source sectors and affected parties.

Response

Please see the response to comment 0501.1.001.005 regarding public sector point sources and the response to comment 0139.1.001.017 addressing cost benefit. The response to comment 0067.1.001.009 details EPA's WIP rationale and how it has changed.

Comment ID 0312-cp.001.003

Author Name: Nguyen Vinh

Organization: Northern Virginia Association of Realtors (NVAR)

- Incorporating estimates on the overall implementation cost of the TMDL benchmarks as well as a cost-benefit analysis on individual sector improvements within urban developments, on-site septic systems, agricultural lands and wastewater treatment facilities; and,

Response

EPA will not be performing a cost-benefit analysis or an estimate of implementation cost as part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0322.1.001.001

Author Name: Calamita F.

Organization: Stormwater Association of Maryland, Inc. (SWAM)

In the Draft WIP, the State has proposed three options for Phase I MS4 permittees. Option 1 would require that all Phase I MS4s retrofit/restore 30% of existing untreated impervious area by 2017. Option 2 would increase the retrofit/restoration percentage to 40%. Option 3 would increase the percentage to 50%.^[FN 2] If the 2017 goal is not met, the WIP indicates that these percentages would increase to 60% or even 70%:

If the strategies fall short of the 2017 goal, increase MS4 permit requirements for MD's largest counties and the State Highway Administration to require installation of stormwater controls on 40% or 50% of their impervious surface by 2017 in their jurisdictions that do not already have stormwater controls. The 2020 goal would increase to 60% or 70%, respectively, depending on the option selected.^[FN 3]

Likewise, the Draft WIP proposes to establish a mandatory 20% retrofit/restoration requirement for all Phase II localities.^[FN 4] There are no alternative options presented for Phase II communities.

In the Draft TMDL, EPA has largely adopted Maryland's Draft WIP approach. EPA has established what it is calling "minor-level backstops" for Maryland. This means that EPA has made minor adjustments to Maryland's nonpoint source ("NPS") allocations, but has made "[n]o changes to point source wasteload allocations that would affect NPDES permit conditions."^[FN 5] For purposes of urban stormwater, EPA explains that:

Maryland's draft Phase I WIP provides that 50 percent of the state's urban acres developed before 1985 in Phase I MS4 jurisdictions will be redeveloped or retrofit by 2020 to a 25% stormwater efficiency. Forty percent of the state's urban areas developed before 1985 in Phase II MS4 jurisdictions and smaller, non-MS4 areas will be redeveloped or retrofit by 2020 to a 25 percent stormwater efficiency. If those retrofit and redevelopment requirements are not sufficient to have practices in place by 2020 to meet Maryland's stormwater WLAs, EPA assumes that Maryland will increase these retrofit and redevelopment requirements accordingly.^[FN 6]

SWAM disagrees with EPA's and the State's approaches in that cost simply has not been reasonably considered or factored into the TMDL and WIP.

As both agencies are aware, local governments continue to suffer with tightening local budgets and reduced revenues. According to an October, 2010 Research Brief from the National League of Cities ("NLC"), "Local and regional economies characterized by struggling housing markets, slow consumer spending, and high levels of unemployment are driving declines in city revenues." The October brief shows that concerns over local fiscal health remain at the highest level in the 25 year history of the survey. Two of the major issues plaguing cities are declines in personal property and sales tax. As a result, NLC concludes that:

2010 reflects a number of downward trends for city fiscal conditions. The impacts of the economic downturn are becoming increasingly evident in city projections for final 2010 revenues and expenditures, and in the actions taken in response to changing conditions. The local sector of the economy is now fully [sic] the midst of a downturn that will be several years in length. The effects of a depressed real estate market, low levels of consumer confidence, and high levels of unemployment will likely play out in cities through 2010, 2011, and beyond.^[FN 7]

The National Association of Counties also conducted a survey of sample counties across the United States in June

2010 ("How Are Counties Doing? An Economic Status Survey"). According to the Executive Summary: "This survey reveals that the downturn continues to be widespread with counties of all sizes feeling the crunch from many directions." Furthermore, "[c]ounties report that they are using furloughs, layoffs and service curtailment to help reduce budgets that in many cases remain problematic because of continuing shortfalls."

In short, Maryland's local governments are in no position to fund an expensive and mandatory restoration/retrofit program that must be completed within the next nine years. Of course, this begs the question: How much would it cost to implement EPA's and Maryland's urban restoration/retrofit proposal?

SWAM submits for consideration by EPA and the State the attached Technical Memo by a national engineering firm with expertise in stormwater management. The Technical Memo estimates urban stormwater costs for Bay TMDL implementation on an annual per household cost basis. For a level of effort that approximates that of the Draft TMDL and Draft WIP, the analysis developed cost estimates to restore 50% of existing untreated impervious area over a 15 year term (the period required by EPA in its Draft TMDL). The result was an annual per household from a low of \$678 per year in 2011 to a high of \$1,717 in 2025. [FN 8]

The Technical Memo's cost estimate is only for urban retrofits; it does not include costs for stormwater management in unregulated areas or to pay for other costs associated with existing MS4 programs. Thus, total stormwater management cost increases would presumably be considerably higher factoring in increasing requirements of MS4 permits, costs of implementing other TMDLs beyond the Bay TMDL, and generally increasing liability for infrastructure renewal.

Elsewhere, EPA has estimated that the cost for urban stormwater control may be \$7.9 billion per year for the Bay TMDL watershed. [FN 9]

The nationally-recognized Center for Watershed Protection has estimated urban retrofit costs at on the order of \$88,000 per acre. [FN 10]

SWAM respectfully submits that the Draft TMDL and Draft WIP do not address these major cost issues in a reasonable manner.

For these reasons, at this time, SWAM finds unreasonable the proposals in the Draft TMDL and Draft WIP that would mandate major increases in Phase I MS4 restoration/retrofit and the establishment of similar requirements for Phase II MS4 permittees.

SWAM respectfully requests that EPA and the State each conduct thorough cost and cost-benefit, and affordability analyses before adopting a final TMDL or WIP with restoration/retrofit requirements beyond current permit requirements

Finally, SWAM requests that EPA and the State work closely with localities to define a reasonable approach and manageable level-of-effort that is affordable at the household level.

[FN 2] Draft WIP at ES-15; 5-23.

[FN 3]Draft WIP at 5-23.

[FN 4] Draft WIP at ES-15; 5-24.

[FN 5] Draft TMDL ES-8; 8-13.

[FN 6] Draft TMDL at 8-13. SWAM disagrees with the implication that MS4s are required to comply with WLAs or any other stated assumptions in a TMDL such as impervious area retrofit/restoration percentages. Section 402(p)(3) of the Clean Water Act provides that MS4s are to comply with the MEP performance standard ("Permits for discharges from municipal storm sewers-...(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable...") (emphasis added). This requirement operates in lieu of strict compliance with TMDL WLAs and other provisions of a TMDL. The final TMDL and WIP should incorporate the MEP standard for clarity on this point and consistency with the operative provision of the Clean Water Act.

[FN 7] October Research Brief at 7 (available online at http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB_CityFiscalConditions2010.pdf).

[FN 8] Technical Memorandum: Stormwater Retrofit Cost Estimate Case Study (October 12, 2010) (attached as Appendix 1 hereto) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0322.1.001.001].

[FN 9] The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay: A Revised Report Fulfilling Section 202a of Executive Order 13508 (Nov. 24, 2009).

[FN 10] See Appendix 1 [Comment Letter contains additional information in the form of an attachment. See original comment letter 0322.1.001].

Response

A TMDL is not a federal mandate. Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

EPA has reviewed the technical memo however, the recommendations and concerns of the commenter are very relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan. EPA is not considering cost in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings

necessary to meet water quality standards given reasonable assurance that standards will be achieved.

Section 301(b)(1)(C) of the Clean Water Act, provides that there shall be achieved limitations such as those "necessary to meet water quality standards, treatment standards, or schedule of compliance. . . required to implement any applicable water quality standard." 33 U.S.C. § 1311(b)(1)(C); see also 40 C.F.R. § 122.44(d)(1). At the same time, the Clean Water Act also provides that permits for municipal dischargers "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." 33 U.S.C. § 1342(p)(3)(B)(iii). EPA therefore recognizes that attainment of water quality criteria is an incremental process to be achieved over several permit cycles. See Preamble to the National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, 64 Fed. Reg. 68722, 68731 (Dec. 8, 1999) ("At this time, EPA determines that water quality-based controls, implemented through the iterative processes described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards. See sections II.L and II.H.3 of the preamble."); id. at 68753 ("EPA envisions application of the MEP standard as an iterative process."); id. at 68754 ("EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii).").

Comment ID 0330.1.001.002

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

The City of Chesapeake, Virginia ("City") welcomes the opportunity to comment on the draft Chesapeake Bay Total Maximum Daily Load ("Draft TMDL") issued by the United States Environmental Protection Agency (EPA) on September 24, 2010.

The City has for many years operated under an individual Phase I MS4 National Pollutant Discharge Elimination System (NPDES) permit issued by the Virginia Department of Conservation and Recreation and is looking forward to its third renewal in the near future. The City has committed significant resources under our storm water utility program to further local and regional efforts to improve water quality in both the Chesapeake Bay and the Albemarle Sound in North Carolina. The City remains committed to doing its part to meet reasonable Total Maximum Daily Load (TMDL) goals.

The City is a member of the Hampton Roads Planning District Commission (HRPDC) and the Virginia Municipal Stormwater Association (VAMSA), both of which organizations have analyzed the Draft TMDL with the assistance of scientific and environmental experts. The City fully endorses the position adopted by the member localities at the HRPDC meeting on October 20, 2010, and the position of the VAMSA, which jointly include:

--The EPA fails to consider cost, cost effectiveness and cost benefit in the imposition of the Draft TMDL goals.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0332.1.001.003

Author Name: McNeal Brian

Organization: Rebkee Company

We at the Rebkee Company have great concerns with the draft TMDL and backstops proposed by the EPA, many of which have already been raised by Governor McDonnell and Secretary Domenech

o It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0335-cp.001.004

Author Name: Halprin William

Organization: Tidewater Builders Association (TBA)

During this difficult economic period for the nation and Virginia, we find our industry along with numerous Virginia businesses, local governments, farmers and the Commonwealth itself facing an unprecedented and unfunded Federal mandate - an untenable TMDL for the Chesapeake Bay. Regrettably, the EPA has chosen not to conduct cost analysis for the Bay TMDL, and we believe this mandate will not only extend the so-called jobless recovery period, but expand it into many other sectors of the state's economy. We request that EPA complete a comprehensive cost analysis.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which

outlines the federal effort towards the Bay.

Comment ID 0336-cp.001.001

Author Name: Napolitano John

Organization: Napolitano Enterprise

1. We are in the worse economic shape this country has faced since the great depressoin and yet the EPA is going to introduce an unprecedented and unfunded federal mandate. This will not help the effected states recover econimically.
2. Surely the EPA can slow down and find a ballance between the economic impact of the TMDL and the immediate clean up needs of the bay.
3. Virginia has already spent a enormous amount of money and has made tremendous progress in reducing nitrogen, phosphorous, and sediment since its 1985 levels.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0339-cp.001.002

Author Name: Mcdonough Peter

Organization: Virginia Golf Council

- The Chesapeake Bay Model, the basis for nutrient and sediment reductions required by EPA, has been shown to have extensive flaws in the data it utilizes. EPA even acknowledges this fact. EPA should not move ahead with costly mandates based upon flawed modeling and data.
- EPA's federal backstops requiring more unregulated lands to meet MS-4 requirements may cause significant economic hardship for urban landowners, including the green and turfgrass industries. Please do what is right!

Response

Please see response to 0379.1.001.006 to address the commenters concerns with the models. Please refer to the response for

comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Comment ID 0341.1.001.004

Author Name: Anderson David

Organization: Virginia Fountainhead Alliance

- The EPA has not conducted a cost analysis for the Bay TMDL. As a result, the EPA's actions will likely result in crippling costs being imposed on Virginia businesses, localities and the Virginia economy. Fairfax County, for example, estimates that it will spend \$90 million each year until 2025 for stormwater retrofits alone.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0355.1.001.002

Author Name: Williams Jesse

Organization: Williams Cattle Company LLC

2. We believe the cost of the Bay TMDL will be excessive in light of the current economic conditions for cities, counties and the agriculture community. We believe the EPA must conduct a non-biased economic impact analysis of the cost for all sectors, public and private, to meet the proposed standards. We believe the federal government must be prepared to fund the mandates which will be required by local governments.

Response

A TMDL is not a federal mandate. Please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0357.1.001.002

Author Name: Pugh Molly

Organization: Virginia Grain Producers Association (VGPA)

Agriculture is improving water quality through voluntary and incentive programs now. A recent USDA study (Conservation Effects Assessment Project) showed from 2003 to 2006, cropland reduced "edge of field" sediment by 64%, nitrogen by 36% and phosphorus by 43%. However, the impact to the Bay was only a 14% reduction in sediment, 15% in nitrogen and 15% in phosphorus. This presents three questions for us, "What is going on between the farm field? Why are farmers responsible for Bay impact beyond their fields? Will costly, additional mandates for agriculture really achieve EPA's water quality goals in the Bay?" In Virginia, agriculture has already met 52% of our nitrogen goals and 50% of phosphorus and sediment goals; according to calculations of those acres implemented through voluntary, incentive-based programs. We wonder if the goals set by EPA are achievable with today's population and need for food, fiber, feed and fuel. We believe that before millions more dollars are spent that EPA produce proof that the TMDL standards are achievable without economic disaster to the region. We also request proof that the current BMPs used in "Scenario Builder" and other model calculations actually will deliver significant water quality improvement in today's environment.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay. Please note that a TMDL is not a federal mandate.

Please see the response to 0379.1.001.006 which addresses your concerns with the model and Scenario Builder.

Comment ID 0357.1.001.003

Author Name: Pugh Molly

Organization: Virginia Grain Producers Association (VGPA)

Without assurance from EPA that goals can be met with the Bay region's economy intact, it is irresponsible for states and federal leaders to commit millions of taxpayer dollars towards the Bay clean-up effort. Virginia's agriculture and forestry contribute \$79 Billion to the Commonwealth annually making it by far the number one economic driver. This

sector must be protected and supported to thrive and grow. Water quality goals cannot be achieved without agricultural acres. By mandating restrictions, as EPA has in their "backstop" measures, EPA is hurting the industry that has and will continue to help them reach clean-up goals through voluntary measures. For example, a typical grain farm nutrient management plan (NMP) costs between \$3 and \$5 per acre. For a 2000 acre grain farm that is potentially \$10,000 for a plan that must be revised each year without any assurance that NMPs actually achieve improved water quality; especially considering farmers often apply less nutrients than called for in their NMP. The state of Maryland has required NMPs for some time showing no water quality improvements over states without a NMP requirement. Mandates do not achieve water quality but, willing participants do. Farmers work to mitigate any soil loss, put out as little fertilizer as they can and apply as few crop protectants as possible because each of these issues costs the farmer money and profits. EPA needs to allow our Virginia farmers to continue their already significant progress without additional regulations or mandates. We request an economic analysis from EPA of full Bay clean-up efforts including a breakdown of cost to each source sector.

Response

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Please note that a TMDL is not a federal mandate.

Comment ID 0358-cp.001.002

Author Name: Hassinger Mark

Organization: WestDulles Properties

--It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0359.1.001.006

Author Name: Candland Matthew

Organization: Carroll County Water Resources Coordination Council (WRCC), Carroll County, Maryland

We are also deeply concerned that these regulations will be created and adopted before anyone knows how much they will cost. We believe it is essential to fully understand the costs and benefits of the proposed regulations before they are imposed on local governments.

Response

A TMDL is not a federal regulation. EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0360-cp.001.002

Author Name: Wells Eric

Organization: WestDulles Properties

--It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

EPA disagrees with the comment that it is arbitrary or wrong for TMDLs to not consider cost. EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Comment ID 0362-cp.001.003

Author Name: Chillemi A.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0366-cp.001.004

Author Name: Melchione Pete

Organization: Southland Corporation

It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0375-cp.001.003

Author Name: Wells Kyle

Organization: WestDulles Properties

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0376.1.001.017

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

Virginia has enacted legislation requiring implementation planning for TMDLs. Va. Code § 62.1-44.19:7. That legislation requires that such plans include an analysis of the associated costs, benefits and environmental impact of addressing impairment. Id. EPA has failed to do so here. As noted above, EPA does not have any independent authority to require or impose implementation plans on states. The Virginia WIP, if required at all, is required by Virginia law and, accordingly, must address all of the elements outlined in the relevant statutory provision.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0384-cp.001.003

Author Name: Page T.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0389.1.001.012

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

C. While The LI Sound TMDL Used a Cost-Effectiveness Metric In Determining Reductions, the Draft Chesapeake Bay TMDL Specifically Avoids Consideration of Cost-Effectiveness.

New York and Connecticut examined two alternative scenarios in developing the nitrogen pollution reduction plan under the LI Sound TMDL: (i) a "limit of technology" or "LOT" approach; and (ii) a "cost sensitive scenario [that] identified a level of nitrogen reduction estimated to maximize increases in [pollutant] levels relative to the implementation cost." LI Sound TMDL at 22. The LOT scenario, examined first, "reflected loading of nitrogen at the current limits of control

technology for point and nonpoint sources" at an estimated to cost \$2.5 billion to implement. Id. By contrast, the cost-effectiveness approach showed that, "[a]lthough the water quality improvements were nearly the same as the LOT scenario, the estimated cost of implementing the point source actions was \$650 million" -- a quarter of the cost associated with the LOT scenario. Id. at 23. Because of the vastly lower cost, the TMDL recommended -- and EPA approved -- "a 58.5 percent reduction in nitrogen from point and enriched nonpoint in-basin sources" as specified under the cost-sensitive scenario. Id.

EPA also allowed consideration of costs in examining the proposed participation of upstream states:

In this case, the states estimated 25 percent reduction in nitrogen loads from point sources (primarily POTWs) is reasonable because this level of reduction has been demonstrated as feasible through Biological Nutrient Removal (BNR) retrofits of existing facilities. These low cost retrofits were implemented at numerous Connecticut POTWs during Phase II of the Long Island Sound nitrogen reduction program. The reductions achieved by these retrofits support the predicted 25 percent reduction by out-of-basin sources. EPA believes that these estimates of future reductions make sense.

EPA Approval at 13. Indeed, as noted, the proposed upstream point source reductions were based on the less stringent and costly controls already implemented by Connecticut during an earlier phase of the TMDL. Of course, Connecticut and New York are employing more stringent and costly controls under Phase III of the LI Sound TMDL.

By contrast, the Chesapeake Bay TMDL expressly does not consider cost-effectiveness. Moreover, under the E3 and "relative effectiveness" scenarios adopted by EPA, each of the States is theoretically being treated the same. As we explain below, however, these scenarios penalize New York in two ways that it has no control over:

(i) New York's mere proximity in the Chesapeake Bay watershed causes its nitrogen inputs to be more "valuable" than inputs from certain parts of the southern watershed; and (ii) New York's climate makes it much harder to reduce nitrogen from treatment facilities -- a matter we discuss in more detail below. The result is that New York -- which does not benefit from a restored Chesapeake Bay watershed -- is being required to implement measures that are not cost-effective, while other States within the watershed will be able to employ cost-effective controls. [FN12]

[FN12] 12 While EPA may claim that the offset provisions of the Draft TMDL allow for a "leveling of the playing field" when it comes to cost, the reality is that NY sources are in no position to purchase offsets. This issue is discussed further below.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to Comment ID 0080-cp.001.002 for discussion of equity and allocations to New York.

Comment ID 0402.001.006

Author Name: Campaign Mass

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Sixth : Adding costly regulations without economic benefit may make young and beginning farmers unable to enter agriculture . The average age of farmers in the Chesapeake Bay watershed is increasing . Young and beginning farmers already face significant financial and environmental challenges which make farming difficult . Proposed regulations without offsetting financial benefit will only make this worse.

I appreciate the chance to comment on the proposed regulation. The environment is important to me and my family. We have worked hard to improve water quality in the Chesapeake Bay watershed . We hope all proposed regulations will be fair without putting our region, businesses and lifestyles at an economic disadvantage to other regions .

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0410.1.001.019

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

We have seen economic analysis documents for other federal actions such as the effluent limitations guidelines. Has EPA developed an economic analysis or cost feasibility document for the implementation of the Chesapeake Bay TMDL?

Response

EPA has not considered cost as part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0429-cp.001.002

Author Name: Reeves J.

Organization:

US EPA & its senior staff on this initiative:

4- must keep summarizing and capturing the many "benefits" to watershed & USA from these efforts plus produce key "Cost/Benefit" reviews (which should substitute for the time-consuming "Use Attainability Analysis" some ask for).

5- should lead/educate watershed stakeholders that 3 of the worst 4 "pollutants"--sediments, total N and total P--are really valuable *resources, not "wastes", that if conserved and better utilized on our lands or urban & commercial places we'd overall gain benefits and improved sustainability.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. However, please see the response to comment 0251.1.001.002 for examples of how improved water quality benefits the local economy.

Comment ID 0430-cp.001.003

Author Name: Owens James

Organization: Hampton Roads Association for Commercial Real Estate

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

· It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0434.1.001.005

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

- Allocations to Virginia's agricultural sources, both point and non-point, cannot be met without a commitment of funding for agricultural BMPs and technical assistance.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to 139.1.001.006 outlining assistance to the agricultural community.

Comment ID 0440.1.001.001

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

- Local fiscal impacts: Chief among VACo's concerns to local fiscal impacts. For example, the consulting firm, CDM, estimated that the costs associated with urban stormwater retrofits expected by EPA in the Virginia portion of the Chesapeake Bay Watershed will range between \$678 and \$1,717 per household per year until 2025. (To address the issue of cost and economic impacts, the comments suggested the establishment of high level study group similar to the Chesapeake Bay Blue Ribbon Panel. This Panel was chaired by former Governor Gerald Baliles and established in 2004 by the Chesapeake Bay Executive Council to "identify funding sources sufficient to implement basin-wide clean-up plans." After estimating total clean up costs to be \$28 billion, the Panel's chief recommendation was the creation of a regional \$15 billion Chesapeake Finance Authority. \$12 billion would be capitalized through federal appropriations, and \$3 billion from state contributions. These recommendations did not appear to receive serious consideration.)

Response

Please see the response to comment 217.1.001.003.

Comment ID 0442.1.001.002

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

The Metropolitan Washington Council of Governments (COG) is a regional association of 21 local governments in the Washington metropolitan region, whose combined population represents more than one-quarter of the population of the entire Bay watershed. I serve as Chair of COG's Chesapeake Bay and Water Resources Policy Committee, which developed these comments on behalf of the COG Board of Directors. I note that the District of Columbia, which has a different status in the Chesapeake Bay Program than the rest of COG's membership, does not share all of the concerns expressed in these comments.

Comments

1. EPA and States Should Address Financial Considerations

As described in EPA's TMDL document (ref. Section 6. Chesapeake Bay TMDL Development, Section 7. Reasonable Assurance & Accountability Framework, Section 8. WIP Evaluation & Draft Backstop Allocations, and Section 10. TMDL Implementation & Adaptive Management), neither the TMDL nor the WIPs address affordability, cost-benefit considerations, or the availability of funding for implementation. The absence of financial considerations leads us to question whether the load reductions specified by the proposed source allocations are financially feasible. The importance of such financial considerations will become more obvious during the development of the Phase II WIPs. (ref. Section 5.3 Phase 5 Chesapeake Bay Watershed Model).

Example:

Both state WIPs propose the use of highly ambitious levels of urban stormwater retrofits (Maryland, directly through several proposed options for reducing urban stormwater WLAs; Virginia, indirectly, through one of the EPA's proposed backstopping actions). Most COG members will not be able to achieve such levels without a significant amount of cost-share assistance. Moreover, on a cost-per-pound basis, urban stormwater retrofits are among the most costly ways of reducing nutrient pollution compared to other practices.

Recommendation #1: Provide a Comprehensive Cost Analysis

We recommend that each state, as part of its Phase II WIP and Two-Year Milestone development and in consultation with local governments, include a thorough cost analysis for urban stormwater retrofits as part of an overall analysis of cost affordability and cost effectiveness among the different sources of pollution and reduction practices. This analysis should be designed so that every local government with MS4 responsibilities will know just how much capital and operating expenses they will face as a part of their implementation responsibilities. The degree to which stormwater retrofits are required to achieve load allocations should not be set in the TMDLs themselves nor in the Phase I WIPs and should be periodically adjusted based on adaptive management principles (see Comment # 6) (ref. Section 10. TMDL Implementation & Adaptive Management).

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to comment 0501.1.001.005 regarding public sector point sources. EPA has not considered affordability, cost-benefit considerations, or the availability of funding for implementation in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0443.2.001.010

Author Name: Moore Shannon

Organization: Frederick County Government

Frederick County also echoes the concerns of the Maryland Association of Counties on the following points:

- Federal Funding Needed for County Governments
- Technical Assistance Needed for County Governments

Response

Please also see the response to comment 0501.1.001.005 for information on public sector point sources.

Comment ID 0444.1.001.009

Author Name: Allen Paul

Organization: Constellation Energy

EPA should address achievability of the Draft TMDL from a socio-economic perspective. It does not appear that EPA has taken the steps to assess the overall achievability of the allocations set forth in the Draft TMDL. We believe such an assessment is critical to the process particularly with respect to the socio-economic impact that the TMDL may have on the many businesses, states and regional economies falling within its wide scope. EPA should step back and perform such a full analysis, then allow review and comment from interested stakeholders.

Response

EPA will not be performing a socio-economic impact analysis in the TMDL for reasons discussed in the response to comment 0139.1.001.017. It is not EPA's intention to do economic harm to businesses and communities within the watershed.

Comment ID 0458-cp.001.003

Author Name: Cooper Michael

Organization: Brandywine Realty Trust

3)It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0459-cp.001.001

Author Name: Kanode Hahns

Organization: Shen-View Enterprises, Inc.

I am a consultant for farmers in Rockingham and Augusta counties in Virginia. I am extremely concerned that the EPA should conduct a non-biased economic impact analysis before adopting any new regulations for farmers in this area.

Response

EPA will not be conducting an economic impact analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. EPA reminds the commenter that the TMDL is not a Federal regulation.

Comment ID 0464.1.001.005

Author Name: Bush J.

Organization: Virginia Forest Products Association (VFPA)

Third, we have concerns regarding the potential cost of compliance taking into consideration the current economy. The Bay TMDL, which requires Virginia to develop a Watershed Implementation Plan (WIP), will have a high cost for compliance for all sectors. While we agree that there is a benefit of clean waters within the Bay and local watersheds, the economic costs for compliance must be balanced, and water quality programs cannot be developed in a vacuum without considering economic impacts to the economy.

Before moving forward with a finalized Bay TMDL, EPA must conduct a non-biased economic impact analysis. Experts from land-grant universities from across the watershed could be called upon to evaluate the actual costs of meeting water quality standards for businesses, citizens, localities, states, and the federal government.

Current funding estimates are only based upon the cost of installing the practice, and they do not account for costs like loss of productive land, replacing practices when weather damages occur, fluctuations in markets, etc. Economic conditions (lack of profits, increased input costs, additional credit not an option) means that extra money to meet regulations is non-existent.

Cost share funding will be critical to meeting demands of EPA. Forestry, as well as agriculture, lawn care, turfgrass, and others, have all seen depressed profits, just as the State and local governments have been facing historic deficits. Individual businesses, landowners, farmers, and the State cannot meet this unfunded mandate from EPA without

significant federal funding.

Response

EPA will not be considering economics or conducting an economic impact analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to comment 0038.1.001.024 outlining the Federal effort towards the Bay.

Comment ID 0465.1.001.004

Author Name: Marks Martha

Organization: NAIOP (Commercial Real Estate Development Association) Northern Virginia Chapter

- Costeffectiveness.

Proposing a policy that governs 64,000 square miles of land in six states and the District of Columbia without taking into consideration the costs to society is unconscionable. The cost effectiveness of the proposed solutions needs to be considered and incorporated into the TMDL. This policy has the potential for closing down business and industry resulting in substantial job losses. And, while the EPA may not be required by law to understand the financial implications of these proposed regulations, it is foolish not to not take it into consideration and understand the economic impact of the proposed policy on the future of this region.

Response

EPA reminds the commenter that we are legally bound to establish the TMDL by December 31, 2010 and will not be considering financial implications as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0478-cp.001.003

Author Name: Fleury Thomas

Organization: Cityline Partners

We respectfully request that you delay any action on adoption and implementation of TMLD measures for the Chesapeake Bay until 12/31/13 based on the following rationale:

3) EPA has not even attempted a cost benefit analysis.

Response

A cost benefit analysis is beyond the scope of the TMDL, as discussed in the response to comment 0139.1.001.017. Please see the

following URL regarding not extending the TMDL deadline. http://www.epa.gov/reg3wapd/pdf/pdf_chesbay-StatementonBayTMDLCommentPeriod.pdf.

Comment ID 0483.1.001.001

Author Name: Wood Heather

Organization: Virginia Port Authority (VPA), Norfolk, Virginia

Need to consider cost-effectiveness:

The draft TMDL includes no consideration for cost-effectiveness or cost-benefit, which is unacceptable for a multi-billion dollar regulation that will affect stakeholder for decades to come. Retrofitting existing urban/industrial development with stormwater quality controls is the single least cost-effective method for achieving the Bay TMDL. For example, many agricultural practices and wastewater treatment plant upgrades can reduce phosphorus loads at capital costs of \$5-200 per pound per year. Industrial stormwater retrofits, by contrast, cost \$10,000-25,000 per pound per year. It is in the interest of VPA that the Bay TMDL recognize this disparity, and avoid saddling the industrial stormwater sector with impractical reduction requirements. Rather, the Bay TMDL allocations should be consistent with redevelopment-driven improvements.

Response

A cost benefit analysis is beyond the scope of the TMDL, as discussed in the response to comment 0139.1.001.017. EPA reminds the commenter that the TMDL is not a Federal regulation.

Comment ID 0501.1.001.005

Author Name: Stainman S.

Organization:

8. EPA should fund WWTP upgrades where they will help comply with TMDL emissions.

Response

Funding to municipalities and states for updates to infrastructure such as POTWs/WWTPs and MS4/stormwater systems is relevant to the implementation of the TMDL, but beyond the scope of the TMDL itself. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish funding or sources of funding. For this reason, EPA does not consider funding to be relevant to the TMDL, but instead to the implementation of the TMDL.

That being said, EPA understands the significant cost pressures that both states and municipalities. There are several cost-share,

grant and technical assistance programs that EPA is funding in order to assist the Bay community in this undertaking. The \$11.2 million increase in Chesapeake Bay funding now totaling \$50 million will help the seven Bay watershed jurisdictions to develop new regulations, design Watershed Implementation Plans (WIPs), reissue and enforce permits, and provide technical and compliance assistance to local governments and regulated entities.

In addition, under the Clean Water State Revolving Loan Fund (CW SRF) program and American Reinvestment and Recovery Act (ARRA), the Chesapeake Bay jurisdictions received \$536.2 million in FY 2009 and FY 2010, which they can use to fund projects that help local governments reduce nutrient and sediment pollution affecting the Bay, including pollution from stormwater. Under the President's FY 2011 Budget, the Bay jurisdictions would receive an additional \$155 million in CW SRF funding.

Furthermore, two additional grant programs which target Chesapeake Restoration include the Water Pollution Control State and Interstate Program Support (CWA 106) and the Nonpoint Source Program (CWA 319). These programs will be receiving \$27 million and \$23 million, respectively, in FY 2010.

The challenges of protecting and restoring the Chesapeake Bay are significant, and we are continuing to work closely with all our partners to identify the funding needs required of future initiatives.

Comment ID 0505.1.001.005

Author Name: Potter James

Organization: Maryland Chapter, American Planning Association

- Connect TMDL and Smart Growth to economic development objectives and job creation. Our members made it clear that in the end solutions that make economic arguments are the easiest to justify and implement. We are all feeling the strain of reduced budgets and broadly distributed resources. EPA must provide economic justifications for its recommendations and strategies. All requirements should be accompanied by an estimate of the jobs to be created by its implementation. Use economic benefits among the metrics for TMDL efforts.

Response

Although EPA agrees with the commenter that jobs will be created as a result of implementing the TMDL, an economic justification is beyond the scope of the TMDL. Please see the response to Comment 0139.1.001.017 for a discussion of economic considerations.

Comment ID 0512.1.001.009

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #10 - The County would recommend that there be more federal and state cost share funding available for local stormwater management projects.

Response

Please see the response to comment 0501.1.001.005.

Comment ID 0515.1.001.009

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

The TMDL does not consider or address its socioeconomic impact as to each of the affected 92 Bay watershed segments. This is a material part of a required environmental impact assessment in New York and is also an essential tool to evaluate whether the TMDL violates the constitutionally-protected equal protection rights of citizens and residents in each Bay watershed segment. In the New York portion of the Bay watershed, for example, human population declines in the 20% range have occurred between 1970 and 2000. Federal estimates indicate that the human population in the New York portion of the Bay watershed continues to decline, and 22% of this population subsist on incomes that are below the federal poverty line. Thus, the TMDL's discussion of increasing population is not applicable to the New York portion of the watershed. The TMDL cites some data regarding the economic impact of the Bay itself, but the economic discussion is incomplete because there is no mention of the economies of all Bay watershed communities or the socioeconomic impact implementation of the TMDL will have on them. Each of the sub-sheds draining or discharging into the affected 92 segments covered by the TMDL must be fully-evaluated for socioeconomic impact, including cost-benefit analysis in relation to direct economic benefit each segment derives from the Bay itself. Given our nation's heritage of honoring the principle of "equal protection" under the Constitution, federal laws and regulations, the TMDL must be fully inclusive of watershed-wide demographic and economic data analysis and point-out variations in conditions that exist and impacts that will result by region as well as within each of the 92 Bay watershed segments affected by the TMDL.

Response

Please see the response to comment 0080-cp.001.002 for a discussion of equity and New York and the response to comment 267.1.001.006 for a discussion of New York's responsibility to downstream states in regards to this TMDL.

EPA did not consider socioeconomic impacts for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0515.1.001.025

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

E. Require Chesapeake Bay Impact Analysis for All Bay-Watershed Planning and Zoning Actions

To address potential concerns about uncontrolled or over-development, the EPA should consider requiring via the TMDL or WIPs that all local planning, zoning and land use matters in the Bay watershed include a mandatory Chesapeake Bay impact analysis. Such analysis appears necessary to control growth in shoreline states to the extent that further expansion and development threatens the Bay's WQ. If the Bay is to be restored, the unbridled development described in the TMDL which has contributed in large part to the degradation of the Bay MUST be brought under control (even to the point of imposing federal backstops which restrict or limit growth in Bay shoreline jurisdictions that do not attain their assigned WQ standards or required milestones).

Response

EPA does not have authority to require local planning or zoning ordinances. EPA has funded organizations to develop model ordinances which have been used as examples within jurisdictions. EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0517.1.001.004

Author Name: Miller Christopher

Organization: Piedmont Environmental Council

Federal funding for construction of new and reconstructed suburban and urban storm water systems is also necessary. A regional estimate for construction, reconstruction and maintenance should be included in EPA's final TMDL, as well as the potential sources of revenue.

Response

EPA will not be estimating cost burdens as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay and the response to 0501.1.001.005 for discussion of public sector point sources.

Comment ID 0519.1.001.005

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Cost Concerns

Local governments in Virginia strongly desire a constructive role in improving water quality in the Chesapeake Bay and all waters of Virginia. The Commission staff believes that a sound strategy for improving water quality to levels required by EPA will not succeed unless the economic costs associated with these efforts are fully understood, and a plan is developed for distributing these costs among the different levels of government. The USEPA need to understand that local governments in Virginia have major concerns about the costs that the TMDL initiative will impose upon local governments, especially with those associated with stormwater retrofits.

Unfortunately the USEPA has acknowledged in recent public meetings that the TMDL does not consider affordability or cost-effectiveness. Local governments have a responsibility to their citizens to seek cost-effective solutions. By ignoring cost, EPA's disapproval of Virginia's WIP essentially conflicts with the public interest in efficient and affordable regulations. The Commonwealth of Virginia additionally needs to undertake a cost analysis of the alternatives associated with individual allocation scenarios in the development of the Phase I and Phase" WIP. This analysis should be designed in a manner in which every local government will be able to understand how much capital and maintenance/operating expenses will be required as a result of their implementation responsibilities.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. Please see the response to comment 501.1.001.005 for discussion of public sector point sources and comment 0067.1.001.009 and Section 8 of the TMDL report for discussion of WIP backstops.

Comment ID 0530.1.001.005

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

Issue #2: The cost of implementing the Chesapeake Bay TMDL, including the identification of funding sources and the associated economic impact, has not been fully considered.

PBA believes that EPA must encourage innovative pollution reduction options and support Pennsylvania's existing collaborative approach to the Chesapeake Bay TMDL in large part because it is acutely concerned about the costs associated with the Bay's restoration efforts. The activities currently being considering regarding builders and developers, such as no new discharges and requiring special septic systems, will have significant and lasting impacts on the industry's ability to continue to run their businesses and provide affordable housing. Likewise, the extraordinary costs of this rule are likely to further depress the already troubled economies of the Bay states, decrease tax revenues, and add to job losses.

EPA must assess the cost implications and affordability associated with the regulatory requirements it considers. The cost of the proposed new requirements on new development, and redevelopment in urban centers, for example, are

likely to be significant, and must be compared to other options that may be available to meet the same goals. The public is not an endless source of financing and the rule must be affordable to succeed. Many localities cannot currently afford to deliver the services needed by their citizens. Given the fiscal status of the federal and many state and local governments, as well as the continuing sluggishness of the national economy, serious questions exist as to where any proposed new public resources for the TMDL's implementation may come from. EPA has a responsibility to determine these costs, share that analysis with the public, and implement the most cost-effective solutions.

To be effective, the TMDL and its implementation plans must optimize costs and benefits and be designed to be implemented using available resources. To date, however, it is uncertain whether the proposal meets any of these goals, as EPA has included little data or information regarding how much the TMDL will cost or how its implementation will be funded. Absent this information, the public is at a loss to fully understand the overall plan or provide meaningful input. While EPA is quick to point out that the agency is not legally obligated to do a cost analysis for a TMDL, anyone who has had a hint of the potential cost of the new requirements will agree that a cost analysis is deserved for those who must foot the bill in these difficult economic times. A full cost analysis is also necessary because of the number of unique factors associated with the proposed Chesapeake Bay TMDL, including:

It is unprecedented in size and scope, as it extends over portions of 6 states and Washington, DC, an area of 64,000 square miles, a total of 92 watersheds, and 17 million inhabitants;

EPA expects it to be held up as a model for similar nutrient reduction programs that will occur around the country;

EPA is, in this proposal, taking an expansive view of its authority regarding state decision-making over land use, use of state finances, the stringency of state WIPs developed to meet the rule, and other matters that have traditionally been left to the states;

EPA intends to hold the states, municipalities, NPDES permit holders, and citizens responsible if the states do not live up to EPA's vision of complete compliance with the proposed rule; and

The stringency of the new pollutant reduction requirements will significantly strain the already challenged state and local government budgets and may simply be unaffordable for the states and localities covered by the rule.

For Pennsylvania's housing industry, the costs of the TMDL will be borne by the in the form of land, planning, and carrying costs; installation and maintenance of BMPs; and, given that Pennsylvania has set aside no pollutant allocation for future growth, the requirement to offset all pollutant loadings from new construction activities. These will ultimately be felt in the market as a combination of higher prices and lower output for the housing industry.

As output continues to decline and jobs continue to be lost in Pennsylvania's housing industry, other sectors of the economy that buy from or sell to the housing industry will also contract and lose jobs. Builders and developers already are being crippled by the economic downturn and the ability of the home-buying public to absorb significant new costs and the TMDL will further exacerbate these challenges. Further, because compliance costs are incurred prior to the home sales, builders and developers will be required to pay carrying costs, which add additional cost to projects. Because the vast majority of our membership consists of small businesses, even moderate cost impacts or variations between regulatory options can have dramatic and significant negative market impacts.

This rulemaking also promises significant consequences for commercial builders, contractors, proponents of public infrastructure projects, and virtually any facility operator that is contemplating expansion. There will be serious ramifications and unintended negative impacts on state and local governments responsible for completing their own construction projects, while also overseeing the implementation of the TMDL through the state and local permitting

programs. Obviously, the scope and the many unique features of the proposed rule alone constitute sufficient reason to conduct a comprehensive cost/benefit analysis of the Chesapeake Bay TMDL.

Response

EPA notes that the TMDL is not a Federal rulemaking. EPA will not be conducting a cost/benefit analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

EPA is under legal obligation to establish a TMDL that allocates loadings of pollutants of concern to all sources in the watershed given reasonable assurance to meet water quality standards.

Comment ID 0531.1.001.007

Author Name: Abraham Phillip

Organization: Virginia Association for Commercial Real Estate (VACRE)

VACRE urges EPA to delay adoption of the TMDL and any decision to impose backstops on the states for at least one year and until no sooner than December 31, 2011. We ask for this for the following four reasons:

Third, it is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so. This decision in the urban/suburban sector of Virginia would require Virginia taxpayers to pay between \$12.5 billion and \$45 billion in costs for just the urban retrofit component of the TMDL allocation for Virginia over the proposed fifteen year period. As evidenced by the order of magnitude estimates prepared by Michael S. Rolband of Wetlands Studies and Solutions, Inc. and filed in this docket, much greater reductions in pollutant levels from the urban/suburban sector could be achieved at far less cost through the implementation of other available best management strategies, such as wastewater treatment (See Exhibit 2.1 of November 5, 2010 "Comments on the Commonwealth of Virginia Chesapeake Bay TMDL September 2010 Draft Phase I Watershed Implementation Plan" by Michael S. Rolband). Despite this evidence, one of the proposed EPA backstops for Virginia would require implementation of urban retrofits.

Response

Please see the response to 0683-cp.001.003.

Comment ID 0538.2.001.002

Author Name: Charles Mark

Organization: City of Rockville, Maryland

U.S. EPA should undertake an intensive effort to develop local program capacity to manage stormwater utilities.

As stated in the Maryland Draft Watershed Implementation Plan, the TMDL will heavily rely on local funding sources to implement the pollutant reductions expected on MS4 communities. Costs, time, and technical expertise will all be significant barriers to local stormwater programs enacting local funding sources. Therefore, we encourage U.S. EPA to devote substantial resources to building capacity in local programs to enact local funding systems, particularly stormwater utility fees. This capacity building effort should include read to use tools for assessing impervious surface cover, developing a rate structure, and billing customers. For example, U.S. EPA should consider hiring contractors to assist local communities to develop customized utilities.

This effort will yield a long term, stable funding source for local programs and will have greater benefits per dollar spent on individual pollution control projects. EPA may lack the funding to help every program build the stormwater retrofits required, but EPA can build the capacity for all programs to be successful.

Response

Although EPA agrees with the commenter that capacity building is an important part of the implementation of the TMDL, it is beyond the scope of the TMDL itself, which establishes the pollutant loadings to meet water quality standards. Please see the response to comment 0038.1.001.024 outlining the Federal effort for the Bay and the response to comment 0501.1.001.005 addressing public sector point sources.

Comment ID 0538.3.001.004

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Maryland should direct funding and technical assistance to NDPDES MS4 permit holders to support data gathering and asset management.

To help address the comment above, the Maryland Department of Environment can decrease the time lag between when NPDES jurisdictions receive their permits and the construction of retrofits by helping local programs assess their retrofit opportunities quickly and accurately. This assistance should include funding to hire contractors to prepare assessments, or for larger jurisdictions with more capacity, technical guidance on how to assess retrofit opportunities. In addition, MDE should also provide assistance to local programs so they may measure the performance of completed watershed improvements, which will help better guide the design and locations of future retrofits.

Response

Please see the response to comment 0034-cp.001.001.

Comment ID 0551-cp.001.004

Author Name: Horton William

Organization: Hurt & Poffitt, Inc.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003..

Comment ID 0553.1.001.009

Author Name: Uzupis John

Organization: Synagro Technologies, Inc.

We also respectfully request that EPA conduct a revised nutrient source analysis along with an economic impact analysis, before moving forward with a finalized Bay TMDL.

Response

EPA is unsure of the logic of revising the nutrient source analysis that was done for the Bay TMDL as more than sufficient data was included in the source representation work. EPA will not be conducting a cost analysis as a part of the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0555.1.001.003

Author Name: Shadowen H.

Organization: Brandywine Realty Trust

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done

so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0563-cp.001.001

Author Name: Wagner A.

Organization:

NYS has cleanest water in Chesapeake Bay Watershed

The additional limitations will be an unfair burden on NY agriculture

The EPA should incorporate revisions recommended by NY DEC in their watershed plan

Response

Please see the response to Comment ID 0080-cp.001.002.

Comment ID 0569.1.001.006

Author Name: Blackwood Wade

Organization: American Canoe Association

4. In the long run, implementing the TMDL will be less expensive than not doing so, for several reasons.

a. Unless we intend to completely abandon the commercial and recreational fishing industries that rely on the Bay, we cannot afford to allow water quality to get any worse, or even allow it to remain as bad as it is now. These industries have suffered terribly from the effects of poor water quality, and their troubles have had significant adverse effects on the economy of the Bay region. Strong action is needed to revitalize these industries so that they can again contribute to the region's economy.

b. Much of the region relies on the Bay and its tributaries for drinking water. According to EPA's own study [FN3], improving the quality of water in its natural setting is less expensive than treating that water to make it safe for drinking. As the region's population increases, demand for clean water will continue to grow. Allowing source water quality to continue to deteriorate will increase the costs of meeting future demand.

c. No discussion of the costs of implementing the TMDL is truly accurate or complete if it does not include an

examination of the economic benefits of the investments in clean water technologies that would result from implementation of the TMDL. Upgrading sewage treatment plants and implementing agricultural best management practices will support several thousand jobs in the watershed. Focusing exclusively on the costs of mitigation fails to take into account these economic benefits.

[FN 3] U.S. EPA. Economics and Source Water Protection. Presentation by Eric Winiecki.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. However, please see the response to comment 0251.1.001.002 for examples of how improved water quality benefits the local economy.

Comment ID 0571.1.001.005

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

These and other requirements will limit the affected state's ability to spend taxpayer dollars to the best advantage of its citizens. Yet these are the requirements that EPA wants other areas of the country to duplicate. As we have pointed out in previous comments, it is inappropriate for EPA to hold out the Chesapeake Bay TMDL as a model program for other water quality improvement programs to duplicate.

Response

EPA has communicated at public meetings that the nitrogen, phosphorus and sediment TMDL being established for the Chesapeake Bay watershed could provide lessons learned when nitrogen, phosphorus and sediment TMDLs are done elsewhere in the United States. As the Chesapeake Bay watershed enjoys a rich history of science and a wealth of data, the TMDL established will be defensible and will drive the control of pollution. Since nitrogen, phosphorus and sediment impairments are increasingly found on 303(d) lists throughout the nation, lessons learned in this watershed will likely be replicated as nitrogen, phosphorus and sediment TMDLs are developed elsewhere. States are required by law to develop TMDLs for waters identified as impaired on their 303(d) lists.

Comment ID 0572.1.001.004

Author Name: Robinson Steve

Organization: National Association of Conservation Districts (NACD)

We are concerned that EPA has proposed pollutant reductions that are not realistic nor economically or technically feasible, and has failed to quantify the associated costs and benefits. Before establishing a final TMDL, the agency should consider the economic and social impacts, providing transparent information regarding the cost of proposed water quality standards. The EPA should not move forward with a TMDL that is bound to fail due to unrealistic costs. NACD encourages the EPA to set achievable water quality standards and to fully take into account the economic and technical feasibility of reaching these goals.

Response

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017. It is important that EPA distinguish that the TMDL is required by law to establish the loadings necessary to meet water quality standards, but does not establish the specific BMPs to implement the allocations. For this reason, EPA considers the comments and concerns not to be relevant to the TMDL, but instead to the implementation of the TMDL and the individual jurisdictions Watershed Implementation Plan.

Comment ID 0575.1.001.006

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

II. EPA FAILURE TO CONSIDER COSTS IS ARBITRARY

A. Case Study Demonstration: James River Basin

The James River basin alone faces extraordinary costs if EPA's allocations are finalized. As the knee-of-the-curve below shows, it would cost over \$10 billion more on the James to comply with EPA's Draft TMDL allocations for chlorophyll-a.

[Figure 5: Knee-of-the-Curve Analysis for James River Chlorophyll-a WQS. Please see page 18 of original document 0575.1]

Figure 5 shows that the cost of the Tributary Strategy is approximately \$9 Billion. In addition, Figure 5 shows the estimated capital costs of attaining the chlorophyll-a criteria against the percent attainment rate. The capital costs include estimates for basin-wide wastewater treatment plant upgrades, agricultural BMPs, and urban runoff controls necessary to meet the allocations identified by EPA for the scenarios identified in Figure 5. The wastewater treatment plant capital costs are a function of design flows and level of treatment (biological nutrient removal, enhanced nutrient removal and limit of technology). Agricultural capital costs are based on BMP unit cost per acre and the BMP assumptions used in the Phase 5.3 Model. The urban runoff capital costs [FN 27] are based on the performance associated with the runoff reduction method for an estimated amount of retrofit controls that could be installed in a locality, which represents only a portion of the urban runoff costs. The costs for the remainder of the urban runoff reductions needed to meet the allocations would be achieved with stormwater capture/storage and reuse. The

estimated capital costs were prepared for the following EPA Scenarios:

- '91-'00 Base Scenario: Point "A" represents the James River TN and TP loading of 36.9 and 3.3 million pounds per year, respectively.
- EPA's Tributary Strategy: Point "B" represents the James River TN and TP portion of the Bay-wide loading, which is 27.5 and 3.3 million pounds per year, respectively.
- EPA's James Chl-a Compliance: Point "C" represents the James River TN and TP loading of 23.5 and 2.35 million pounds per year, respectively. EPA has selected this scenario as the basis for compliance with the James River chlorophyll-a criteria. EPA also refers to this scenario as "James Level of Effort at 1/2 Potomac". In the Draft TMDL (Appendix J), EPA states "In the James, the nutrient loads are equivalent to the level of effort halfway between Virginia's portion of the Potomac and the James for the 190/12 Loading Scenario." In other words, EPA is referring to a new theoretical scenario that is more stringent than the Virginia Regulations as to the James River but not quite as stringent as Virginia's Regulations require for the Potomac River, which have a far greater impact on Bay water quality.
- E3 (Everything, Everywhere, by Everybody): Point "D" represents the James River TN and TP loading of 16.1 and 1.5 million pounds per year, respectively. EPA considers this to be the "theoretical maximum levels of managed controls on all pollutant load sources". There are no cost and few physical limitations to implementing controls for point and nonpoint sources that are recognized in the E3 scenario. This scenario is used with the No-Action scenario to define the "controllable" loads, i.e., the difference between No-Action and E3 loads." See Draft TMDL at Appendix J.

The knee-of-the-curve analysis determines where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. There is a steep inflection at Point "B" that represents the knee-of-the-curve. Any reduction beyond Point "B" lacks a viable cost-to-benefit ratio and does not reflect a reasonable benefit. EPA has selected Point "C" as the basis for the James River compliance with the chlorophyll-a criteria, which is about half way between Point "B" and EPA's E3 scenario (Point "D"). If one assumes that the model predictions are accurate (about which there is substantial doubt), at Point "B", the James River would be 93 to 94 percent compliant with chlorophyll-a criteria compared to 99 percent at Point "C." However, the true difference in chlorophyll model output between Points "B" and "C" is only 2 to 3 ug/L (three parts in a billion). Additionally, the sampling and testing accuracies for physical water measurements is 1 to 3 ug/L. In other words, even if the loadings between Points "B" and "C" were achieved, it is unlikely that the difference in James River chlorophyll-a concentrations could be measured. The difference in the estimated cost of achieving the loadings between Points "B" and "C," on the other hand, is over \$10 billion- a sum that cannot only be measured, but will be paid by Virginians if EPA's Draft TMDL is adopted as is on this issue.

It is incumbent upon EPA to reconsider the basis for the James River allocations, considering the magnitude of the costs of attaining levels of load reductions required to produce a difference in modeled chlorophyll-a concentrations so small that they cannot be reliably measured. Further, it is incumbent upon EPA to consider these staggering costs as it finalizes its TMDL. At a minimum, EPA should not pass the knee-of-the-curve identified at Point "B" of the above graph. Assuming there is any real water quality improvement beyond Point "B," it would not be cost effective, could not be physically measured, and could not be reasonably attained. The only reasonable response is to set James River basin allocations should be based on the Tributary Strategy allocations.

Given this economic backdrop statewide and on the James and given the weaknesses in the model's predictive abilities at such a small scale,[FN 28] VAMSA cannot begin to understand EPA's decision to sidestep discussing the potential economic impact of the Bay TMDL on Bay dischargers. Furthermore, as noted above, EPA has said that it will not consider requests for a UAA to determine the feasibility of this TMDL. EPA's determination that it will take a lawful option off the table to consider cost-related issues and impacts is unjustifiable.

While VAMSA appreciates the more flexible approach evident in the WIP, VAMSA has similar cost concerns regarding the overall level of effort in the WIP as to Urban Stormwater.

[FN 27] Urban nutrient management was not included. The capital costs are based on meeting the waste load allocation for the Urban Runoff identified in Appendix Q-I of the Draft TMDL.

[FN 28] See discussion at Section i.e. regarding modeling issues.

Response

Please see response to comment 0230.1.001.048 to address the concerns in this comment.

Comment ID 0601-cp.001.003

Author Name: Greenfield Elizabeth

Organization: Richmond Association of Realtors (RAR)

On behalf of the 4,700 members of the Richmond Association of Realtors®, we are formally submitting comments on the implementation of the TMDL. The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0603-cp.001.003

Author Name: Kerr Bob

Organization: Kerr Environmental Services Corp.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0611.1.001.003

Author Name: Knapp Leslie

Organization: Maryland Association of Counties (MACo)

Technical Assistance Needed for County Governments: In addition to the significant cost burdens imposed by the TMDL on local governments, there is also a need for technical assistance. Local governments, and in many instances the State, lack the scientific expertise necessary to fully comprehend the impacts of the many nutrient reduction strategies that will be proposed and implemented. Counties expect the private sector and even some in the public sector to propose many new and innovative strategies for achieving the TMDL goals and they need help to analyze the effectiveness of these strategies and develop adequate tracking systems.

Response

Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay. One of the expectations of the jurisdictions Watershed Implementation Plans was to provide assurance to meet the TMDL allocations which includes an explanation of future program enhancements above and beyond current program capacity that will aid in meeting the required reductions, including technical assistance. This issue will be important as each jurisdiction develops their Phase II Watershed Implementation plans which will look at the TMDL on a more local level. Phase II is an excellent opportunity for the commenter to work with their jurisdiction to include more detail and suggestions to address the need for technical assistance for local governments.

Comment ID 0612.1.001.004

Author Name: Willis James

Organization: Titan America LLC

Titan America supports delaying adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0624-cp.001.003

Author Name: Bushey J.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0626-cp.001.004

Author Name: Stone Melanie

Organization: Holladay Properties, Inc.

It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

Please see the response to comment 0683-cp.001.003.

Comment ID 0627-cp.001.004

Author Name: Surkamp Jim

Organization:

But this project was launched before the economic downturn of late 2008 -

Response

EPA has a deadline of December 31, 2010 to establish a TMDL for the Bay. For a discussion of the consideration of economics, please see the response to comment 0139.1.001.017.

Comment ID 0652.1.001.003

Author Name: Pandish Steven

Organization: William H. Gordon Associates, Inc.

The EPA has often spoken of the TMDL effort as "a pollution diet" for the Bay. This is a thoughtful phrase as it implores us to realize the Bay is living, and begins a dialogue about the health and welfare of the Bay utilizing medical terminology. Any medical treatment always involves the discussion of efficacy, a discussion of the benefit and potential "side effects" to the patient. In this case, the treatment is the regulation. The potential "side effects" from the proposed treatment (the regulations) may be economic stress and loss of jobs to our economy as jobs may move to other areas of the country.

It is arbitrary and wrong for the EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

The unknown associated costs may be the greatest impediment to an effective program. The economic impact of the proposed regulations must be understood, especially in consideration of the current economic challenges in the region. It is incumbent the EPA delay adoption of the TMDL and backstops, using this additional time to develop an analysis of costs and cost-effective solutions, to ensure we are moving in the right direction to achieve our goals.

Response

Please see the response to 0683-cp.001.003. EPA reminds the commenter that the TMDL is not a regulation.

Comment ID 0660.001.001

Author Name: Knicely D.

Organization:

I farm in the Rockingham County, VA. We have changed our ways of farming from the mol board plow to 100% no till from 36" cropland. We use flash grazing and in year 2009 built a 84400 gal. above ground storage tank without government funds.

Dairy farming has been passed from the old to the young for years and we hope to do the same with the farm improved each time it passes to the younger!

With high priced land, grain, fuel, seed, repairs, we need to be concerned about your wishes and would like you to do the same.

Help the farmer receive a fair price and we will keep working for your goal. Our family has worked hard along with many other farmers to make BMPs work.

Response

EPA commends all efforts made thus far to improve water quality, but reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. Please see the response to comment 0139.1.001.006 outlining funding available to the agricultural community.

Comment ID 0669.001.006

Author Name: Burkholder J.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

Sixth: Adding costly regulations without economic benefit may make young and beginning farmers unable to enter agriculture. The average age of farmers in the Chesapeake Bay watershed is increasing. Young and beginning farmers already face significant financial and environmental challenges which make farming difficult. Proposed regulations without offsetting financial benefit will only make this worse.

I appreciate the chance to comment on the proposed regulation. The environment is important to me and my family. We have worked hard to improve water quality in the Chesapeake Bay watershed. We hope all proposed regulations will be fair without putting our region, businesses and lifestyles at an economic disadvantage to other regions.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0675-cp.001.004

Author Name: Orlando Robert

Organization: PR Patrick Henry LLC

- It is arbitrary and wrong for EPA to refuse to consider and incorporate cost-effectiveness into its proposed TMDL. EPA acknowledges it has not used any analysis of costs in the development of its proposed TMDL and says it has not done so because it is not required by law to do so.

Response

EPA disagrees with the comment that it is arbitrary or wrong for TMDLs to not consider cost. EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Comment ID 0683-cp.001.003

Author Name: Massey R.

Organization: Ross, France & Ratliff, Ltd.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

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Response

EPA disagrees with the comment that it is arbitrary or wrong for TMDLs to not consider cost. EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay which is explained in the response to comment 0139.1.001.017.

Please see the following URL for EPA's statement on why we are not extending the TMDL deadline.

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StatementonBayTMDLCommentPeriod.pdf

Comment ID 0700.001.004

Author Name: Tamberrino Frank

Organization: Harrisonburg-Rockingham Chamber of Commerce

The Harrisonburg-Rockingham Chamber of Commerce is proud of the environmental stewardship efforts made by our members. EPA should reconsider its present course and work cooperatively with Virginia and other Bay jurisdictions to continue the significant strides already made to improve the Bay without imposing new and costly regulatory burdens.

Response

EPA commends all efforts made thus far to improve water quality. We look forward to working with our partners in Virginia and the other Bay jurisdictions to implement this TMDL.

Comment ID 0702.001.006

Author Name: Eberly N.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

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I appreciate the chance to comment on the proposed regulation. The environment is important to me and my family. We have worked hard to improve water quality in the Chesapeake Bay watershed. We hope all proposed regulations will be fair without putting our region, businesses and lifestyles at an economic disadvantage to other regions.

Response

EPA reminds the commenter that the TMDL is not a federal regulation.

Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

For additional information please see the response to 0139.1.001.017 which discusses the issue of cost analysis and EPA's desire for trading to aid in alleviating some of the financial burden across the Bay jurisdictions and comment 0038.1.001.024 which outlines the federal effort towards the Bay.

Comment ID 0710.001.003

Author Name: Berger Karl

Organization: Metropolitan Washington Council of Governments (COG)

Is it EPA's position that cost and cost-efficiency considerations are not part of the TMDL itself and, if they are to be addressed, must be addressed by states through the WIP process?

Response

Please refer to the response to comment 0139.1.001.017.

Comment ID 0711.001.004

Author Name: Schwartz Laurie

Organization: Waterfront Partnership of Baltimore, Inc.

We recognize that reaching our goal requires money - significant amounts of it. We have indicated our support for a Storm Water Fee or Utility to Mayor Rawlings-Blake and to our State legislators. We agree that businesses, developers and other commercial interests will have to pay their fair share to assist in stream restoration projects, storm water retrofitting, removal of impervious surfaces and installation of BMPs and the like. It is imperative that this work get underway immediately.

Response

Please see response to 0501.1.001.005 which addresses the costs associated with the increases in cost to update infrastructure. Please see the response to 0038.1.001.024 outlining the federal effort towards the Bay.

Comment ID 0730.001.006

Author Name: Horst R.

Organization:

I am a farmer in Rockingham County, Virginia. I am also a member of the Mennonite faith. I'm concerned that several issues being discussed will affect my lifestyle and potentially my ability to farm. Please understand I choose not to participate in the legislative process or government programs for my personal financial benefit in accordance with my religious beliefs. That said I sincerely hope the following information will be considered when developing and implementing both the TMDL and the Watershed Improvement Plan for the State of Virginia.

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Response

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Please see response to 0159.001.001 to address economic impacts. Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report also describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

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**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category:

25. Water Quality Data & Monitoring

Pages 2566 – 2617

25.0. Water Quality Data & Monitoring	Pages 2566 – 2576
25.1. Watershed Modeling	Pages 2576 – 2587
25.2. Tidal Waters (Bay and Tidal Tributaries)	Pages 2587 – 2593
25.3. QA/QC	Pages 2594 – 2594
25.4. Database	Pages 2594 – 2594
25.5. General/Miscellaneous	Pages 2594 – 2617

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

25 - WATER QUALITY DATA & MONITORING

Comment ID 0230.1.001.033

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

E. The historical chlorophyll-a monitoring data are too limited to support the TMDL

The level of data is inadequate for assessment according to EPA guidance. Data from the monthly fixed site data collection program from 1991-2000 was used as the TMDL base-line. Although the data is considered appropriate for monitoring of general status and trends (for which it was designed), it is considered too coarse to reliably support a TMDL with such high cost implications. For example, most James River segments are characterized by only 2 stations per river segment per month and the TMDL is constructed to address each water body segment individually. Because chlorophyll-a has been shown to be spatially patchy and dynamic [FN63] basing the segment interpolation (the basis for non-attainment calculations) on only a few stations would lead to unrepresentative results (see example in Figure 3) - especially during periods that the algae blooms are initiating, peaking, or dissipating. Because of these issues, the EPA has established in guidance that an "adequate" assessment of chlorophyll-a should employ a combination of fixed sites and DataFlow (EPA 2003). Also, according to EPA 2003, "the uncertainty associated with assessment of chlorophyll a criteria attainment using only the fixed station monitoring program would be expected to be quite high."

<"Example of patchy chlorophyll a distribution" Figure 3 on page 37 of Comment Letter EPA-R03-OW-2010-0736-0230>

To address these issues, one of VAMWA's members, HRSD, has been conducting weekly DataFlow (DFLO) on the lower James River (JMSMH and JMSPH) segments since March 2005. Monitoring of the LAFMH and ELIPH segments was added in March 2008. The Virginia Institute of Marine Science has been conducting DFLO cruises on JMSTF1, JMSTF2, and JMSOH segments on a monthly schedule. The VIMS and HRSD DFLO data, made available on the Virginia Estuarine and Coastal Observing System (VECOS) <http://www2.vims.edu/vecos/> in combination with traditional fixed sites, have been used by the VADEQ in order to improve the reliability of the resulting assessment. To evaluate the effect of the DFLO data collection on the regulatory assessment of James River chlorophyll standards, the VADEQ assessed the 303(d) results both with and without DFLO information.

The most recent results from the draft 2010 Integrated Report indicate that the regulatory outcomes (i.e., pass-fail) remained the same. However, non-attainment rates were consistently reduced by DFLO in all of the James River segments by an average of 6% (Figure 3a). The potential impact associated with the use of DFLO on the TMDL dataset (1991-2000) is not possible to determine because the DFLO technology did not exist at the time. However, the comparison above suggests that the use of only fixed-site data in the TMDL caused the allocations to be lower (and predicted non-attainment higher) than would have resulted if data would have been collected as EPA recommends. If DFLO is required for a chlorophyll-a water quality standards attainment assessment to be adequate, failure to include DFLO data will result in an inadequate attainment assessment.

<Figure 3a, "Chlorophyll Non-Attainment (2006-2008) Fixed sites only v. Fixed sites+DFLO" on page 38 of Comment

Letter EPA-R03-OW-2010-0736-0230>

Differences in non-attainment rates (between fixed sites and DFLO) are believed to be due to the number of sampling points evaluated and their relative influence on the resulting spatial interpolation step used in the assessment. Experience has shown that weekly data collections with DFLO data are essential to adequately capture bloom dynamics (initiation, peak, and dissipation) over the dimensions of space and time under which they occur. Improvement resulting from the use of DFLO data varies from cruise to cruise depending on the level of "patchiness" observed in chlorophyll-a distributions.

[FN63] See EPA 2003 (attached hereto as Appendix 23)

Response

In many cases of TMDL development there may be less data available than what is deemed optimal, however, lack of optimal data is not a pretext to the delay of TMDL development. Federal regulations acknowledge that load allocations are best estimates of the loading which may vary from reasonably accurate estimates to gross allocations (40 CFR 130.2(g)). TMDLs are supported by varying levels of data from rapid bioassessments of physical, chemical and biological conditions to extensive, long-term historical data sets such as that of the Chesapeake Bay Program Partnerships long term water quality monitoring data. The Chesapeake Bay Water Quality Monitoring Program data set represents and is recognized as one of the best long term estuarine chlorophyll and overall water quality time series data sets in the world. Chlorophyll data are only one parameter in the Chesapeake Bay water quality model as the model is simultaneously calibrated to a suite of physical, chemical and biological parameters all collected at fixed stations across 92 segments. Chlorophyll is not monitored or modeled in isolation.

The Bay TMDL and the supporting suite of models are based on a monitoring extending well into its third decade, carried out following consistent field sample collection and laboratory analysis methods at hundreds of stations across the Bay tidal watershed and the streams and rivers of the surrounding watershed. All assessments of these high quality monitoring data are carried out in strict accordance with each jurisdictions' promulgated water quality standard regulations.

States have adopted a rotation of segment evaluations in which the shallow water mapping complements fixed site data. If shallow water mapping data are available and have been submitted as approved data for assessment, the assessments will include the best available data. The latest update to the methodology for Chesapeake Bay chlorophyll a assessment is published in Appendix G of USEPA 2010. Therefore, the Chesapeake Bay Water quality Monitoring Program has moved forward since 2003 by incorporating water quality mapping as a program element. The rotation of segments mapped each three year period is a function of balancing resources across a multi-dimensional environmental monitoring program for Chesapeake Bay. Assessment methodology involves three years of data for water quality standards evaluation. The three year time frame appreciates benefits from multiple years of data accounting for temporal and spatial variation influencing the water quality standards assessment.

The fixed station data provide one estimate of water quality conditions, the addition of Dataflow data provides a second estimate. Both are estimates of an unknown quantity. As you stated in your comments, the addition of DFLO to an assessment varies in its effects compared with fixed station monitoring from cruise to cruise depending on the level of "patchiness" observed in chlorophyll-a distributions. As pointed out from the updates provided in USEPA 2010, such monitoring assessment methodology is

recommended as part of water quality standards assessment. Note, however, that the Chesapeake Bay water quality monitoring program addresses data collection tracking and reporting on many water quality parameters besides chlorophyll. Not all segments are monitored with water quality mapping each year. There is a rotation schedule for segment assessments every three years with scheduling based upon available monitoring resources. If an institution or agency has the resources to annually provide data sets using fixed and Dataflow data that have been QA/QC'd and accepted by the Chesapeake Bay Program Office and USEPA, then assessments would be conducted with the best available data.

EPA acknowledges and applauds the efforts and commitment of the Hampton Roads Sanitation District to carry out Dataflow monitoring following the same rigorous sample collection and quality assurance protocols as adopted by the states. It is in everyone's collective interest to collect and utilize high quality data to improve all our environmental decisions.

EPA appreciates that the addition of Dataflow data provides a second estimate. Weekly monitoring assessments however remain a snapshot in time with the possibility of missing phenomenon related to tidal cycles or storm events occurring at sub-week timescales affecting the true mean and variability of the data. Such variability can be appreciated when examining fixed station continuous monitoring or vertical profiler data records for diel variability observed across Chesapeake Bay. Still to be evaluated with Dataflow is an assessment of whether adding Dataflow data to assessments provides a high or low bias to the estimate of the true mean. Leading Bay region statisticians and data analysts have raised significant concerns that need to be resolved to the satisfaction of the larger partnership. This required evaluation is the responsibility of the Chesapeake Bay Program's Tidal Monitoring and Analysis Workgroup and the Criteria Assessment Procedures Workgroup. Prior to application of the DataFlow data for making regulatory decisions on water quality standards attainment, the proper assessment procedures must be developed and approved by the partnership (through the Chesapeake Bay Program's Water Quality Goal Implementation Team), published by EPA as an addendum to the original 2003 Bay criteria document, and then formally adopted by each of the four Bay jurisdictions' into their respective water quality standards regulations. Following this process ensures all seven watershed jurisdictions continue to have the highest level of confidence in the full sets of MD, VA, DE and DC's Chesapeake Bay water quality standards whose attainment are driving investments of millions of dollars annually.

Fully consistent with the concept of adaptive management, EPA strives to maintain current and updated science associated with criteria development and assessment. As evidenced by its work with the partnership and outside experts from academia, Federal, state, local governments, River basin commissions, NGOs, independent contractors and industry in producing and supporting the Chesapeake Bay estuarine water quality criteria and protocols for their assessment, the criteria assessment procedures published from 2003-2010 replace and otherwise supersede similar criteria assessment procedures originally published in the 2003 Regional Criteria Guidance and the 2004, 2007, 2008, and 2010 addenda (U.S. EPA 2003, 2004, 2007a, b, 2008, 2010). Publication of future addendums by EPA on behalf of the Chesapeake Bay Program watershed jurisdictional partners is likely as continued scientific research and management applications reveal new insights and knowledge that should be incorporated into revisions of state water quality standards regulations in upcoming triennial reviews.

Comment ID 0230.1.001.035

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

G. Recent monitoring data shows that higher allocations than those proposed by USEPA may achieve chlorophyll-a standards in the lower James River region

As part of the James River TMDL chlorophyll-a analysis, EPA recommended that the chlorophyll-a criteria assessment be changed from arithmetic averages to log-transformed (i.e, geometric) means. The VADEQ evaluated the effect of this methods change on 2008 and 2010 303(d) Water Quality Assessments (VADEQ, 2010). [FN65] Their results indicated that the non-attainment rates decreased substantially for the lower James River region. The revised results for the 2010 Assessment (for years 2006-2008) indicated 99-100% attainment for the lower James River segments. Based on these observed results VADEQ believes that the "dissolved oxygen based" James River allocation (TN=26.79 mpy; TP=2.69 mpy) would also attain the chlorophyll-a standard in this region. According to our analysis the lower James River would likely attain chlorophyll standards at a much higher level of loading than the dissolved oxygen based allocations because model estimates of 2006-2008 delivered TN loads for the James River ranged from 35 to 36 mpy respectively. Source: http://www.chesapeakebay.net/data_modeling.aspx. This considerably higher level of loading was associated with near attainment (99-100%) with chlorophyll standards. These results also demonstrate that our previous recommendation to establish the James River allocations at "Tributary Strategy" level is more than environmentally conservative.

EPA has not provided appropriate justifications for additional reductions in allocation below "tributary strategies." In fact, EPA's position on this point is directly contrary to its own approach used to find the Potomac and Anacostia Rivers in compliance with its chlorophyll-a standards. In the case of the Anacostia River, EPA used an existing non-attainment rate of 4% in the monitoring data to determine compliance based on "other lines of evidence." [FN66] EPA's inconsistency in conclusions here between the Potomac and James rivers demonstrates the arbitrary nature of the EPA's TMDL.

[FN65] Attached hereto as Appendix 33.

[FN66] Draft TMDL, Sec. 6 at 40.

Response

The James River allocation is based on all James River segments attaining water quality standards, not just the lower James River. The present allocation reflects that system perspective for James River allocations.

It is true that after a period of analysis and evaluations, conducted through the Chesapeake Bay Program's Criteria Assessment Protocol Workgroup with membership participation from across the Chesapeake Bay Program partnership, that EPA recommended that the chlorophyll a criteria assessment methodology be changed from arithmetic basis to log-transform basis. The sound scientific and statistical basis was developed and published in USEPA 2010 Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries: 2010 Technical Support for Criteria Assessment Protocols Addendum. EPA 903-R-010-002. Region III Chesapeake Bay Program Office, Annapolis, MD.

The Chesapeake Bay TMDL sets a 60% implementation target for 2017 with 100% of all the necessary practices and technologies in place by 2025. Virginia's Watershed Implementation Plan has outlined the Commonwealth's commitment to achieve 100% of

nitrogen and phosphorus reductions necessary to achieve its dissolved oxygen water quality standard based allocation by 2017 and 60% of the chlorophyll a water quality standard. If by 2017, Virginia has monitoring data that indicates achievement of the Commonwealth's chlorophyll a water quality standard within specific segments of or the entire tidal James River, that new assessment information can be factored into the 2017 evaluation of the Bay TMDL.

Observations and reports of algal blooms in the lower tidal James River this past summer clearly point out the river is still not a healthy ecosystem. EPA and Virginia will continue to closely monitor and assess the tidal James River along with many other organizations and citizens groups with a shared objective of restoring a healthy and productive James River ecosystem.

Comment ID 0234.1.001.003

Author Name: Dickey Dean

Organization: Prince William County Service Authority (PWCSA), Virginia

In addition to the likely impairment of the areas drinking water supply, the imposition of a 4 mg/l TN based WLA on the UOSA facility would do virtually nothing to improve the water quality of the Potomac River or Chesapeake Bay. OWML has had an active monitoring program for over three decades and has decisively shown that very little of the UOSA nitrogen discharge passes over the Occoquan Dam to reach the Potomac River and the Bay. In fact, OWML research has demonstrated that reducing nitrate in the UOSA effluent could increase ammonia and phosphorous desorption rates from the reservoir sediments and potentially increase nutrient discharges to the Potomac River and Chesapeake Bay. Therefore, the expenditure of tens of millions at UOSA to reduce nitrogen discharges would have a negligible positive impact on any downstream waters and may in fact increase nutrient discharges from the Occoquan.

Response

Thank you for your comments regarding the TMDL. With respect to the issues related to water quality and Occoquan reservoir:

1. EPA does not agree that very little of the nitrogen in the Occoquan system passes over the Occoquan dam. According to a presentation to the modeling subcommittee by Dr Arthur Butt (VADEQ) on 11/14/96, 42% of the nitrogen reaching the Occoquan reservoir passes over the dam, based on OWML research. This percentage is higher than more than a third of the modeling segments with simulated rivers.
2. Given that a pound of reduction at the Occoquan facility is less effective than other sources in the lower Potomac and information on the Occoquan reservoir functioning VA may want to consider these points in the watershed implementation plans, however from that perspective of the tidal water, there is a load from the Occoquan that must be accounted for.
3. The Occoquan data you cite was not in the monitoring data prepared by USGS for the phase 5 watershed modeling effort. If you provide us access to the monitoring data and we'll use it calibrate the Phase 5.3.2 Chesapeake Bay Watershed Model.

Comment ID 0414.1.001.015

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Nutrient Inputs to the Bay Is a Guess

While POTW's report exact nutrient contributions in their discharges in their monthly DMR's the volume of nutrients entering the Chesapeake Bay is a modeling guess. In the case of New York and Pennsylvania continuous sampling of just a few points would allow the exact calculation of nutrient contributions to the Bay.

It is troubling that the exact amount of nutrient and sediment reaching the Bay from Pennsylvania is not known through continuous measurement, but rather estimated by model. For example, DEP asserts that if more BMP's were reported in Pennsylvania, the model would predict that less nutrient and sediment would reach the Bay even if those BMP's had been implemented years ago. That does not make sense. The point source community monitors its effluent in accordance with their NPDES permits. Why does PA not monitor what it discharges into the Bay? Previous inquiries indicate that it is not DEP's responsibility to undertake such monitoring, but rather the USGS's. Why would the process of adding additional data into a model result in Pennsylvania discharging less to the Bay? This just does not make sense and causes one to question the entire TMDL process.

1. What are the results of sampling the Susquehanna River at the Mason-Dixon Line? Please describe the scope and extent of the data.
2. Please confirm that DEP's assessment in the WIP is correct and that the simple reporting of more BMP implementation would reduce Pennsylvania's contribution to the Bay.

Response

Thank you for your comments and questions regarding nutrients entering the Bay and their measurement.

Yes, the wastewater discharging facilities are regulated through NPDES permits and are required to monitoring their load contributions to the rivers and streams of the watershed. This data is used to help calibrate the Chesapeake Bay Watershed and Bay Water Quality Models as well.

PA does monitor what it discharges to the Bay through its work with the Chesapeake Bay Program's Nontidal Monitoring Network. It does this work in coordination with USGS. Monitoring is expensive. USGS and PADEP along with SRBC combine resources to make measurements that tell us how much and what kinds of nutrients and sediments are moving down the rivers and streams of PA.

The commenter is actually speaking about two different models. First, monitoring what comes out of PA is measured essentially at Conowingo Dam near the PA/MD border. The river flow is actually measured continuously. Nutrients and sediment concentrations are measured 20 times per year which largely reflects the balance of available, limited funding resources when we need to monitor 64,000 square miles of Chesapeake Bay watershed at different scales of space and time. Since TMDL is about a Total maximum

daily load, a nutrient or sediment load in its simplest form is the nutrient or sediment concentration measured multiplied times the measurement of river flow. That estimates your load at that point in time. To know the total load coming from PA, year round continuous measures of river flow data are used and combined, using statistics, measures of concentration at points in time filling in the gaps where we don't have concentration data but we know a lot about how flow and concentration are related. USGS has published the method used with the Susquehanna River and you can view that document from 2000, "A revised load estimation procedure for the Susquehanna, Potomac, Patuxent and Choptank Rivers" at <http://pubs.usgs.gov/wri/wri00-4156/wrir-00-4156.pdf>. This is known as The ESTIMATOR model.

This is not terribly different than the publicly owned treatment works (POTWs) measuring their discharges. Unless POTWs measure nutrient concentrations instantaneously, 24 hours a day, 365 days a year, then a POTW is not going to know exactly what is being discharged, it remains an estimate based on continuous monitoring of flows multiplied times concentrations collected at points in time. The difference between the POTW measures of discharge and the measures of the amount of nutrient going through Conowingo Dam comes down to error bars on the estimates and some differences in the model used to estimate the load. That said, technology has advanced and increasingly there are real time monitoring instruments coming online that allow for instantaneous evaluation of nutrients and sediments in flowing waters. It is likely that both in the field and at POTWs in the future that we will be able to talk about measuring 'exact' nutrient contributions, except that we can't measure every ounce of water with the point of a single meter. As you might imagine, not only is there variability in what comes down the river, there is variability in the concentration across the width of the Susquehanna River. There is also variability within the cross sectional flows of your discharge and there is likely variability between split samples in your QA/QC at a POTW - laboratory assessment variability. In each case, field and POTW, we get estimates of the nutrients in the flows.

Now, another concern here is regarding BMPs and whether or not accounting for more would result in less nutrients and sediments reaching the Bay. There is the Chesapeake Bay Watershed Model that includes an accounting of BMPs in place across the watershed. This is a different model than the one that tells us how much nutrient and sediment is coming over the fall line at Conowingo Dam, the ESTIMATOR model. How much nutrient and sediment coming over the dam is pretty well known because we do measurements through out the year, water flow all the time every day, nutrient and sediments monthly and in storms. The watershed model is a model that tries to capture all that occurs with weather, development, agriculture, urbanization, and more and from the interaction of all those activities and processes, it computes the water quality entering the stream. Real data serve to calibrate the model. Therefore, adding more BMPs to the watershed model can't make more nutrient and sediment go away because we have data that tells us how much is really there. The model has to fit the data as best it can. This is called tuning the model.

Once the model is calibrated, then you can input BMPs to look for how much improvement there is in water quality or whether there is any change at all.

Regarding "What are the results of sampling the Susquehanna River at the Mason-Dixon Line? Please describe the scope and extent of the data."

The Chesapeake Bay Program's nontidal watershed water-quality network (NTN) is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed established in the 1970s (34 sites) and enhanced in 2004 (with an additional 51 sites). This network is an essential component to reporting, tracking, and modeling nitrogen, phosphorus and sediment concentrations and loads in the Chesapeake Bay Watershed. The NTN provides the only long-term, consistent, and coordinated

monitoring effort across all jurisdictions in the Chesapeake Bay Watershed (see section 5.2.2 of the TMDL documentation for further details).

There is one station in the NTN on the Susquehanna River that is close to the Mason-Dixon Line at the Conowingo Dam. This site has been monitored since the 1980s, 20 times a year (once a month and then 8 targeted rainstorm events) for nitrogen, phosphorus and suspended sediment. There is also continuous real-time streamflow monitoring at this location. This station is part of a subset of the sites called the River Input Monitoring Sites where water quality is monitored upstream of the transition area between the tidal and non-tidal regions of the 9 major rivers of the Chesapeake Bay. For a comparison of (1) total nitrogen and total phosphorus concentrations (1985-98), (2) streamflow (1990-98), (3) load (1990-98), and (4) yield (1990-98), at the nine RIM stations see the following link for more information: <http://va.water.usgs.gov/chesbay/RIMP/watchemplots.html>.

Although these figures do not include the most recent 10 years of data, they do give a general idea about the relative status of 9 major river basins in terms of concentration, load and yield of pollutants. The boxplots show the distribution of the data with the middle line of the box plot representing the value that characterizes half of the data. The most recent statistics for the Conowingo Dam site are included in Table 1. The entire data record is available at: <http://va.water.usgs.gov/chesbay/RIMP/dataretrieval.html>. At this location, trends in nitrogen, phosphorus, and sediment concentrations have decreased, had no change, and decreased respectively from 1985-present (see links:

http://www.chesapeakebay.net/status_flowadjustednitrogen.aspx

http://www.chesapeakebay.net/status_flowadjustedphosphorus.aspx

http://www.chesapeakebay.net/status_flowadjustedsediment.aspx

Table 1. Basic statistics for water quality in the Susquehanna River at Conowingo Dam

	Total Nitrogen	Total Phosphorus	Total Suspended Sediment
	1981-present	1981 - present	1981-present
	kilograms/day	kilograms/day	kilograms/day
Min	13,300	336	81,200
Mean	168,653	6042	3,244,138
Median	130,500	3520	933,000
Max	1,070,000	62,900	84,100,000

In answer to your second question, the watershed model predicts changes in loads due to changes in management actions. If a change in management is reported, such as additional BMPs, then modeled loads will reflect that. EPA's policy is to guard against load changes in the model without real load changes in the system by requiring that only BMPs that were implemented since the watershed model was calibrated are included in scenarios.

Comment ID 0512.1.001.008

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comments #9 - The County strongly supports increased water quality monitoring so that our county, DEP, and EPA can accurately determine the minor contributors and treat them appropriately, and identify the major contributors and treat them appropriately. The County believes the EPA should collect more data, including water quality monitoring, before implementing any backstop measures.

To the extent possible, any federal and state actions should be based on actual monitoring data rather than modeling. The County strongly opposes any regulatory allocation that is not based on concrete monitoring data. BMP improvements may take a significant amount of time from implementation until a measurable water quality improvement is noted through monitoring. The reliance on modeling has long been a concern to the Lycoming County Commissioners, who feel that models may not accurately reflect the local conditions. This is the reason that the County is currently working on a pilot water quality monitoring program as part of its Chesapeake Bay Nutrient Management Strategy.

Response

Thank you for your interest and concerns with water quality monitoring in the Chesapeake Bay and its watershed. EPA is aware of Lycoming County's leadership in Bay restoration efforts and the development of your own water quality monitoring program in Lycoming County. The Chesapeake Bay Watershed Monitoring Coordinator, located at the Chesapeake Bay Program Office in Annapolis MD, plans to stay in touch with you regarding your progress, challenges, and successes and potentially seeking your help in sharing lessons learned with other counties.

The Chesapeake Bay Program partners has made a long term investment in monitoring of the tidal waters and the free flowing streams and rivers now well into its third decade. The partnership has long relied upon a balance of scientific understanding, monitoring and assessment, and application of modeling tools to help support its decision making. But the bottom line—restoration of water quality to the Chesapeake Bay and a healthy Chesapeake Bay watershed ecosystem—will always be measured through monitoring observations.

Any monitoring program is a balance of system understanding, available resources to distribute monitoring frequency against spatial resolution, and the incorporation of technological advances that can effect efficiency and data density options in the data collection effort. For the Bay and its tidal tributaries, since 1985, the fixed-station water quality monitoring program as described in Section 5.2 of the draft Bay TMDL documentation has consisted of approximately 140 stations sampled 14-20 times per year. This Chesapeake Bay long term water quality monitoring program is designed to provide a long term record of water quality measurements that reflect seasonal and interannual variations in such parameters as dissolved oxygen. Changes in sampling frequency during a year have fluctuated due to funding resources and Chesapeake Bay Partnership priorities for the distribution of funding resources available. A shallow water monitoring program was deemed most appropriate for assessments of water clarity criteria linked with annual submerged aquatic vegetation monitoring via aerial photograph interpretation. For chlorophyll a, the recommendations for monitoring are combined fixed station plus shallow water mapping data. For further details that compare recommended, adequate and marginal levels of monitoring for dissolved oxygen, water clarity and chlorophyll a monitoring and assessment of water quality standards for Chesapeake Bay, please refer to Chapter VI: Recommended Implementation Procedures in USEPA (2003) Ambient Water Quality Criteria for dissolved oxygen, water clarity and chlorophyll a for Chesapeake Bay and its

tidal tributaries. April 2003. EPA 903-R-03-00. The document is available at the Chesapeake Bay Program publications website: http://www.chesapeakebay.net/content/publications/cbp_13142.pdf . There is an additional suite of addendum documentation supporting the original 2003 work:

U.S. Environmental Protection Agency. 2003b. Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability. October 2003. October 2004. Region III. Chesapeake Bay Program Office. EPA 903-R-03-004. Annapolis, MD.

U.S. Environmental Protection Agency. 2004a. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries - 2004 Addendum. EPA 903-R-04-005. Region III Chesapeake Bay Program Office, Annapolis, MD.

U.S. Environmental Protection Agency. 2004b. Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability – 2004 Addendum. October 2004. Region III. Chesapeake Bay Program Office. EPA 903-R-04-006. Annapolis, MD.

U.S. Environmental Protection Agency. 2004c. Chesapeake Bay Program Analytical Segmentation Scheme: Revisions, Decisions and Rationales 1983-2003. October 2004. Region III Chesapeake Bay Program Office, Annapolis, MD. EPA 903-R-04-008.

U.S. Environmental Protection Agency. 2005. Chesapeake Bay Program Analytical Segmentation Scheme: Revisions, Decisions and Rationales 1983-2003. 2005 Addendum. December 2005. Region III Chesapeake Bay Program Office, Annapolis, MD. EPA 903-R-05-004.

U.S. Environmental Protection Agency. 2007a. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries – 2007 Addendum. July 2007. EPA 903-R-07-003. Region III Chesapeake Bay Program Office, Annapolis, MD.

U.S. Environmental Protection Agency. 2007b. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries –Chlorophyll a Addendum. October 2007. EPA 903-R-07-005. Region III Chesapeake Bay Program Office, Annapolis, MD.

U.S. Environmental Protection Agency. 2008. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries 2008 Technical Support for Criteria Assessment Protocols Addendum. September 2008. EPA 903-R-08-001. Region III Chesapeake Bay Program Office, Annapolis, MD.

The Bay data serve as one of the rare and most extensive continuous estuarine water quality monitoring data sets on earth having grown from approximately 10,000 data points collected per year in the 1980s to a current level of over 10 million data points collected per year for chemical, physical and biological attributes of the Chesapeake Bay and its tidal tributaries and embayments. These data pass through field, laboratory and database QA reviews according to EPA approved protocols. Data from these data sets are publicly available through the Chesapeake Information Management System housed at the Chesapeake Bay Program Office and are used not only for Clean Water Act 303d water quality standards assessments but also to calibrate and validate the Chesapeake

Bay Water Quality Model.

Further, the Chesapeake Bay Program non-tidal watershed water-quality monitoring network (NTN) is now a network of 85 stream flow gages co-located with water-quality sampling sites operating across the watershed. This network is an essential component to reporting, tracking, and calibrating models of nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed. The NTN provides the only methodologically consistent, QA consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. Primary nutrient and sediment load stations are sampled 20 times per year as 12 base flow measurements typically one sample per month to characterize base flow conditions of the annual seasonal cycle and 8 storm flow samples, ideally 2 storms per season to reflect storm conditions of the watershed interseasonally. Storm samples are needed to more accurately estimate the amount of nutrient and sediment moved by the elevated storm flow conditions. Because the water quality sampling events are linked to flow gages that track water flow conditions 24 hours a day, 365 days a year, we can understand the relationships of flows and concentrations in producing loads. A subset of stations known as secondary stations only has 12 base flow samples per year, typically collected once per month to characterize seasonal and annual cycles. Concentrations are computed but not loadings at secondary sites, a small subset of full network of stations. The coordinated Chesapeake Bay watershed NTN network was instituted in 2004, however, a subset of the stations have longer data histories started by other agencies or institutions. There are more stations that have valuable time series but were discontinued as data collection sites for varied reasons. This additional abundance of quality assured data serves to calibrate and validate the water quality dynamics for the watershed model. In 2010, funding was put in place to support 3 new water quality monitoring stations in the Chesapeake Bay Program NTN, specifically in small watersheds (two in Conewago Creek, PA and one in Smith Creek, VA) where increased BMP implementation is expected. These are "Showcase Watersheds".

25.1 - WATERSHED MONITORING

Comment ID 0146.1.001.011

Author Name: Isenberg W.

Organization: Virginia Commonwealth University Center for Environmental Studies. Class: ENVS 601, Professor: P.L. deFur

Monitoring 3rd order stream sub basins, normalizing the pollution levels by relating them to standard average nutrient/sediment loads divided by discharge would allow problem areas to stand out either through exceeding the average, or not changing from the average. Third order sub basins in some cases may be large components of, or in some instances the entire basin. Regardless, it would be a practical level to monitor especially in the James and very extensive Susquehanna. Additionally, because it breaks up the non-tidal basins into manageable sections it might offer incite into where new development and atmospheric sources play the greatest roles. Increasing the resolution, it allows for more adequate monitoring and data collection on changes affecting the landscape. While some WIPs may address this, this should be a standard for all Bay states so that the data that come into the modeling programs continue to be based on the same standard.

Response

Thank you for the recommendation for a consistent monitoring program for 3rd order streams. However, using the 1:100K National Hydrography Database, it was calculated that there are 10,470 3rd order stream segments out of 97,080 total stream segments. Developing a monitoring program whose aim alone is to monitor 3rd order streams would be impractical from a financial perspective as monitoring for nutrient and sediment pollution can cost up to \$46,000/year per monitoring station.

The CBP nontidal watershed water-quality network (NTN) is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed established in the 1970s (34 sites) and enhanced in 2004 (with an additional 51 sites). This network is an essential component to reporting, tracking, and modeling nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed. The NTN provides the only long-term, consistent, and coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed (see section 5.2.2 of the TMDL documentation for further details). Therefore, this is the water quality monitoring network that will ultimately be used to determine the effectiveness of TMDL pollution reduction activities at improving water quality in local waterways.

The NTN is mostly comprised of larger streams (greater than 1000 square kilometers) with primarily forested land cover. Other aspects of the network are that it is also comprised of watersheds with mixed agricultural and forested landuse, and there are few sites in urban landscapes and small watersheds. In 2009 a review was conducted of this monitoring network; it was concluded that new sites should be added to the nontidal network to facilitate the best characterization of the water quality in the Chesapeake Bay Watershed and to meet a variety of programmatic objectives including TMDL monitoring objectives. The new design of the network was suggested based on the following revised monitoring objectives:

o Measure and assess the status and trends of nutrient and sediment concentrations and loads in:

- Major tributaries and sub watersheds
- Selected tributary strategy basins;

o Provide data suitable for the assessment of factors affecting nutrient and sediment status and trends from major pollutant source sectors;

o Measure and assess the effects of targeted management and land-use change;

o Improve calibration and verification of partners' watershed models;

o Support spatial and topical prioritization of restoration and preservation;

The extensive scope of the objectives for the nontidal network implies that stream monitoring locations must represent a wide range of sizes, physical settings, spatial distributions, hydrologic settings, and pollution source sectors (point and non-point, and urban, agricultural, and developing-suburban land uses, etc.). It is suggested that these improvements to the existing NTN would provide a more effective monitoring program for tracking TMDL and WIP progress than would a network that monitors strictly 3rd order streams.

There are several products that originate from this monitoring data that have been useful in identifying hotspots in pollution in certain areas and where pollution is either increasing or decreasing over time. These products include: the flow adjusted concentration trend indicators for nitrogen, phosphorus, and sediment (ex.

http://www.chesapeakebay.net/status_flowadjustednitrogen.aspx) that describe trends over the last 20 years, and the yield-trend indicators for nitrogen, phosphorus and sediment that describe status and trends in pollution over the past 5-10 years (in press).

Comment ID 0179.1.001.004

Author Name: Curatolo James

Organization: Upper Susquehanna Coalition

Why must the TMDL be based on a model estimate rather than based on actual water measurements at the various EPA CB monitoring stations?

Response

A TMDL (Total Maximum Daily Load) is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant. Pollutant sources are characterized as either point sources that receive a wasteload allocation, or nonpoint sources that receive a load allocation. Point sources include all sources subject to regulation under the National Pollutant Discharge Elimination System (NPDES) program, e.g. wastewater treatment facilities, some stormwater discharges and concentrated animal feeding operations (CAFOs). Nonpoint sources include all remaining sources of the pollutant as well as anthropogenic and natural background sources. TMDLs must also account for seasonal variations in water quality, and include a margin of safety (MOS) to account for uncertainty in predicting how well pollutant reductions will result in meeting water quality standards.

The objective of a TMDL is to determine the loading capacity of the water body and to allocate that load among different pollutant sources so that the appropriate control actions can be taken and water quality standards achieved. The TMDL process is important for improving water quality because it links the development and implementation of control actions to the attainment of water quality standards. Models are used to quantify the linkage between the source of pollution in the surrounding watershed with impairments to water quality conditions in the receiving waters, the Chesapeake Bay and its tidal tributaries and embayment in this case. The Chesapeake Bay models are developed, calibrated, and verified using extensive set of water quality monitoring data collected in the watershed (for the Chesapeake Bay Watershed Model) and the estuary (in the case of the Chesapeake Bay Water Quality and Sediment Transport Model). Models enable us to answer questions like “if we reduced the level of pollutant loads from these sources by these levels, would water quality in the Chesapeake Bay be restored to level that would meet water quality standards.”

In Chesapeake Bay, there are dissolved oxygen, water clarity, submerged aquatic vegetation (SAV), and chlorophyll a water quality criteria that Maryland, Virginia, Delaware and the District of Columbia have adopted in their water quality standards regulations. The nutrient and sediment allocations within the Bay TMDL based on the maximum amount of those pollutants that will provide water quality that meet the standards is calculated from a model because water quality conditions now are out of attainment with the standards in most areas of the Bay. The models, calibrated and validated with actual monitoring data, peer reviewed by the scientific and management community, are used to compute how much we need to reduce pollutants and what the target levels of loadings are in order to achieve water quality standards that are in the regulations. Water quality monitoring data is used to assess whether Maryland, Virginia, Delaware and the District of Columbia are actually achieving their Chesapeake Bay water quality standards.

Analysis of water quality conditions will not provide the information necessary to establish limits on pollutant loadings necessary to restore water quality. At the same time, modeling results can not be used to determine if a jurisdiction’s water quality standards are

being achieved. However, applied together in their unique roles, monitoring data and model simulation can help support the decision making needed to take the actions needed to restore water quality in stream, rivers and the Chesapeake Bay.

Comment ID 0202.1.001.003

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

It is commonly understood that if each of the Bay states had New York's current water quality (as measured near the Pennsylvania border near Sayre, Pa), excess nutrient and sediment issues would not exist in the Chesapeake Bay. This concept is reflected in NYSDEC's New York State Tributary Strategy that states "Monitoring data shows generally good water quality in New York and that nutrient and sediment levels are declining. This is largely due to a strong water stewardship ethic and an increasing amount of forest land cover."

Response

Please see the response to comment 0080-cp.001.002 regarding allocations.

Comment ID 0282-cp.001.002

Author Name: Tabb Lyle

Organization: Lyle C. Tabb & Sons, Inc.

At the Martinsburg, WV meeting, we were shown bar graphs with written amounts for discharge by agriculture, then after questions were told that they were established models. We were also told, after further questions, that these numbers came from sample points. I have farmed over 40 years, spent 8 years on the WV FSA State Committee, 6 years on the Jefferson County FSA Committee and 10 years on the NE SARE Committee and have visited hundreds of farms, but have never been aware of or seen a sampling device as described at the November 3, 2010 meeting.

Response

Thank you for your comment regarding watershed monitoring in West Virginia.

Please see Section 5.2.2. of the Chesapeake Bay TMDL document. A short summary of that section here is that the Chesapeake Bay Program nontidal watershed water-quality network (NTN) is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed. This network is an essential component to the reporting, tracking, and modeling of nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed as it provides the only consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed.

There are four NTN sites located in West Virginia. These are four stations out of the 85 total stations in the NTN across the entire Chesapeake Bay Watershed. The West Virginia sites are called primary sites and the following are true of each of these sites: 1) There is a USGS flow gaging station present operated 24 hours a day, 365 days a year,; 2) 20 water chemistry samples are collected annually over a range of stream flow conditions (i.e., 12 base flow and 8 storm flow),; and 3) all samples are analyzed for nitrogen, phosphorus and sediment. Below is a description of each of the four sites:

- Patterson Creek near Headsville (USGS gage 01604500)
- South Branch Potomac River near Springfield (USGS gage 01608500)
- Cacapon River near Great Cacapon (USGS gage 01611500)
- Opequon Creek near Martinsburg (USGS gage 01616500)

Additional information on land use distribution for areas upstream of the monitoring sites is provided by each Chesapeake Bay Partner that include agriculture, forest and urban acreage. Reported changes from the U.S. Census Bureau in housing, population and migration, land cover trends derived from satellite imagery, sewer service areas and county-level population projections are also available. Conversion of forests and farmland development is based on a thorough examination of urban development and land conversion trends derived from satellite imagery dating back more than 25 years. The total of land, air, and water quality science and data are used to develop, calibrate and validate the watershed model that allocates discharge by land use type.

Comment ID 0305-cp.001.002

Author Name: Woodhouse Doug

Organization: Virginia American Water (VAW)

However, there is also a need to make sure that a scientifically sound method for eutrophic measurement is implemented to monitor the status of algae blooms. Due to the hottest summer on record this year, large levels of algae blooms were found at or nearby our drinking water intake on the Appotmattox River. These algae had the component MIB (2-methyl isoborneol). Even at maximum optimization of the drinking water process, only up to 65% of MIB was removed. The maximum level of MIB found in the river throughout the summer was 1253 ng/L. It should be noted that the accepted threshold for human detection concerning taste and odor problems in drinking water is 10 ng/L.

Response

Thank you for your interest in water quality monitoring with specific interest on monitoring the status of algal blooms. Your specific concerns regarding issues of taste and odor in drinking water supplies in the watershed related to algal bloom effects are appreciated and respectfully noted, however, they are not specifically a part of the Chesapeake Bay TMDL. Further, the TMDL addresses nutrient and sediments in the watershed above the fall line with the proposed allocations while monitoring the response of tidal Chesapeake Bay dissolved oxygen, water clarity and chlorophyll a is measured below and assessed against Virginia's Chesapeake Bay water quality standards in State regulations that apply below the fall line. The region you are concerned about, the Appomattox River, is above the fall line in the watershed. Please note that the reductions in nitrogen and phosphorus as a result of implementation of the Bay TMDL should benefit local waters by reducing the growth of algae.

In most places of the tidal Chesapeake Bay, narrative criteria apply for chlorophyll a where measurements of chlorophyll a provide an important index of algal populations. The narrative criteria adopted into Chesapeake Bay states and the District of Columbia's tidal water quality standards reflects "Concentrations of chlorophyll a in free-floating microscopic aquatic plants (algae) shall not exceed levels that result in ecologically undesirable consequences – such as reduced water clarity, low dissolved oxygen, food supply imbalances, proliferation of species deemed potentially harmful to aquatic life or humans or aesthetically objectionable conditions – or otherwise render tidal waters unsuitable for designated uses." (Table 3, Executive Summary, USEPA 2003. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries (Regional Criteria Guidance) April 2003. EPA 903-R-03-002. Region III Chesapeake Bay Program Office, Annapolis, MD. available at the website http://www.chesapeakebay.net/content/publications/cbp_13142.pdf).

There are a few areas where numerical criteria exist for the tidal waters of Chesapeake Bay, the tidal James River in the case of Virginia. Achieving water quality according to defined numerical criteria is generally expected to limit algal blooms. Chlorophyll a is measured in the Chesapeake Bay water quality monitoring program and assessment procedures are published in Appendix G of US EPA 2008. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries. 2008 Technical Support for Criteria Assessment Protocols Addendum. EPA 903-R-08-001 Region III Chesapeake Bay Program Office, Annapolis MD. (See http://www.chesapeakebay.net/content/publications/cbp_47637.pdf). For additional background on algal blooms and monitoring in our region, the most recent document devoted to Chesapeake Bay Chlorophyll criteria is US EPA 2007. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries. 2007 Chlorophyll Criteria Addendum. November 2007. EPA 903-R-07-005. Region III Chesapeake Bay Program Office, Annapolis, MD. (See http://www.chesapeakebay.net/content/publications/cbp_20138.pdf).

Comment ID 0485-cp.001.001

Author Name: Wilkins M.

Organization: Spa Creek Conservancy

Many watershed organizations have a better understanding of their watersheds in regards to water quality data than the State of Maryland Department of Natural Resources and the Maryland Department of the Environment due to the lack of resources in the State of Maryland to conduct weekly monitoring in all Chesapeake Bay tributaries. Will the EPA grant funding to watershed organizations to gather data for the states if a watershed monitoring plan meets Chesapeake Bay Program monitoring guidelines? A more scientific approach can then be used to calculate a Bay TMDL for that Chesapeake Bay region. The TMDL needs to be monitored and tested near the sources, e.g., tributaries and their contributing watersheds.

Response

Thank you for your comments regarding the possibilities of an expanded water quality monitoring program in the Chesapeake Bay and its watershed.

At present, the Chesapeake Bay Program Nontidal Network supports watershed monitoring with federal Clean Water Act funding. The funding for this network has been openly competed as it was in 2009. It is possible that new competitions could occur should funding become available as a means of extending network partnerships, however, there are no such new competitions pending at this time.

EPA recognizes that an ever increasing number of watershed organizations are developing their monitoring programs. In Maryland, the South River Federation (SRF) is attempting to do what you recommend by establishing monitoring protocols from sample collection to analysis, data handling and QA/QC, that are EPA compliant. Maryland Department of Natural Resources is working closely with SRF and the Chesapeake Bay Program Office is providing guidance upon request. This is a pilot effort in Maryland to get data of regulatory quality that provides the more detailed information at smaller scales than can be supported as part of the larger Chesapeake Bay water quality monitoring program. The Bay water quality monitoring program is also funded through Clean Water Act funding, but these particular funds are dedicated in the federal budget for tidal water monitoring by the Chesapeake Bay Partner states. So while the pilot work does not have funding, there are State and Federal resources guiding SRF in meeting monitoring protocol standards. Again, new funding may be available in the future to assist a watershed organization in reaching this level of data collection and delivery quality, but there is no such funding stream available today through the Chesapeake Bay Program Office.

In Virginia, the Virginia Department of Environmental Quality oversees volunteer monitoring data that adds monitoring in areas beyond where the federally supported program. The Virginia data is quality assured and used in the overall Clean Water Act 303d listing assessment of Bay health according to some of the regulations on their books (specifically dissolved oxygen for example). The pilot work in Maryland with SRF represents Maryland's first steps toward involving a broader network of programs already collecting data but needing to coordinate with their programs before the data can be approved, accepted and submitted for inclusion in the water quality standards assessments.

Thank you again for your excellent work, your interest, and stewardship.

Comment ID 0504.1.001.006

Author Name: Elliott James

Organization: Citizens Advisory Committee to the Chesapeake Executive Council

CAC recognizes that there are questions regarding the model, particularly in under-counting non-point source best management practices (BMPs). However, it is unlikely that a refined model that includes more non-point source BMPs will result in significant changes in the TMDL. Progress on meeting the water quality goals is still measured by water quality monitoring data from the tributaries and the Bay and thus we recommend more testing in more locations. Water quality can vary significantly between nearby areas. More monitoring stations will help alleviate some stakeholders' concerns that the TMDL is solely driven by a flawed model versus measured water quality data that shows which segments/tributaries are not meeting water quality standards. A better understanding of sources and sites of major pollution will help the partners to target limited restoration funds and achieve larger gains in meeting water quality standards throughout the watershed. This will be critical to the development and enforcement of the Phase II WIPs. Additionally, more monitoring data will provide a better understanding of the climate change impacts affecting the health

of the Bay.

Response

Thank you for your comments and concerns about monitoring efforts in the Bay and watershed.

The policy for assessing water quality standards in Chesapeake Bay has been to use the best available data. The desire for improving monitoring of water quality conditions assessments led to the initiation of the Shallow water monitoring program in VA and MD in 2003 adding fixed site continuous monitoring stations and the application of surface water quality mapping. Since that time there are pilot studies underway to extend technology that uses vertical profiling instrumentation. Pilot work has been conducted in Maryland and Virginia associated with MD DNR and VIMS/VA DEQ respectively. Further, In Virginia, not only does the Chesapeake Bay Program have data from the long term water quality monitoring network of fixed stations but there is a volunteer network that adds to the QA/QC'd data supporting their 303d listing assessments. Maryland is piloting similar work with South River Federation and looking to expand inclusion of these higher density data sets through additional oversight in the years ahead as Virginia has done. Not only has the Chesapeake Bay water quality monitoring continued to evolve its monitoring technology applications, the USEPA 2003-2010 Ambient Water Quality Monitoring Criteria publication and its addenda push forward advances in analysis approaches. New data streams also provide new opportunities for model development, enhancements and calibration.

In the watershed, the establishment in 2004 of a unified Chesapeake Bay Program Partnership nontidal water quality monitoring network solidified a program adhering to consistent methodology with common QA/QC requirements. The network was established at 85 stations and grew by 3 stations for 2011 with the establishment of showcase watershed monitoring stations in the Conewago Creek, PA and Smith Creek, VA. There is a plan for a limited number of additional sites that support key needs fulfilling the network and its utility for the partnership. there is a desire to further find ways to partner with other agencies and institutions or accomodate new technology and focused monitoring strategies that will meet watershed wide information objectives for adaptive management, including better understanding of climate change impacts affecting the health of the watershed and the Bay.

Thank you again for your concerns and recommendations regarding monitoring for Chesapeake Bay water quality standards assessment.

Comment ID 0591.1.001.009

Author Name: Shields M.

Organization:

With regard to monitoring water quality, even the EPA's own statements are ignored here with this Draft TDML.

"Monitoring the water resource in a watershed is necessary to identify and record pollution. Monitoring is also essential to constantly evaluate water quality and the health of the water resource. The most dependable way to ascertain if changes in land-based activities have affected water quality is to monitor the land and the water resource before,

during, and after a change in land management or restoration occurs (EPA, 1995)."

Where are the EPA stream monitoring systems and stations in West Virginia?

In a watershed, the relationship between changes in land management and water quality can only be established by following a plan, or monitoring protocol.

I think that West Virginia would be better served by placing stream monitoring stations in the source-waters (springs) as well as the exit points to the Potomac river to capture real data regarding what this area is contributing in Nitrogen, Phosphorus and sediment to the Bay.

Response

Thank you for your comments and concerns about the monitoring in West Virginia waters.

The Chesapeake Bay Program's nontidal watershed water-quality network (NTN) is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed. This network is an essential component to reporting, tracking, and modeling nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed as it provides the only consistent, coordinated monitoring effort under a common monitoring plan across all jurisdictions in the Chesapeake Bay Watershed. See Section 5.2.2. of the Chesapeake Bay TMDL document.

There four NTN sites in West Virginia. These are four stations out of the 85 total stations in the NTN across the entire Chesapeake Bay watershed. The West Virginia sites are called primary sites and the following are true of each of these sites: 1) there is a USGS gaging station present; 2). 20 water chemistry samples are collected annually over a range of stream flow conditions (i.e., 12 base flow and 8 storm flow); and 3) all samples are analyzed for nitrogen, phosphorus and sediment. Below is a description of each of the four sites:

- Patterson Creek near Headsville (USGS gage 01604500)
- South Branch Potomac River near Springfield (USGS gage 01608500)
- Cacapon River near Great Cacapon (USGS gage 01611500)
- Opequon Creek near Martinsburg (USGS gage 01616500)

Comment ID 0591.1.001.012

Author Name: Shields M.

Organization:

Monitoring the water is necessary to identify and record pollution events. Monitoring is also essential to constantly evaluate water quality and the health of the water resource. The most dependable way to ascertain if changes in land-based activities have affected water quality is to monitor the land and the water resource before, during, and after a change in land management or restoration occurs (EPA, 1995). At a watershed scale, the relationship between

changes in land management and water quality can only be established by following a precise experimental plan, or monitoring protocol. Detailed pursuits of both land management and water quality is important to supply needed information to know there are obtainable results from taxpayer monies spent on over-reaching programs that have historical been unsuccessful.

This stream monitoring will help to diminish the reliance on the current model, which I believe is flawed. A water quality-monitoring network will enable Jefferson County to portray accurately both trends and loads for nutrients and sediment from our contributing streams. It will allow rapid identification of problems and quick solutions to remedy the pollutant. This sampling program can also be used to improve and calibrate other CBP watershed models.

Response

EPA strongly agrees that water quality monitoring is absolutely critical to identifying and recording pollution events as well as a multitude of other roles in supporting decisions and actions directed towards restoring water quality.

The Chesapeake Bay Program partners has made a long term investment in monitoring of the tidal waters and the free flowing streams and rivers now well into its third decade. The partnership has long relied upon a balance of scientific understanding, monitoring and assessment, and application of modeling tools to help support its decision making. But the bottom line—restoration of water quality to the Chesapeake Bay and a health watershed ecosystem—will always be measured through monitoring observations.

The Chesapeake Bay Program's nontidal watershed water-quality network (NTN) is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed. This network is an essential component to reporting, tracking, and modeling nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed as it provides the only consistent, coordinated monitoring effort under a common monitoring plan across all jurisdictions in the Chesapeake Bay Watershed. See Section 5.2.2. of the Chesapeake Bay TMDL document.

There four NTN sites in West Virginia. These are four stations out of the 85 total stations in the NTN across the entire Chesapeake Bay watershed. The West Virginia sites are called primary sites and the following are true of each of these sites: 1) there is a USGS gaging station present; 2) 20 water chemistry samples are collected annually over a range of stream flow conditions (i.e., 12 base flow and 8 storm flow); and 3) all samples are analyzed for nitrogen, phosphorus and sediment. Below is a description of each of the four sites:

- Patterson Creek near Headsville (USGS gage 01604500)
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- Cacapon River near Great Cacapon (USGS gage 01611500)
- Opequon Creek near Martinsburg (USGS gage 01616500)

A county specific stream monitoring network within Jefferson County would certainly be an excellent addition to the Chesapeake Bay's watershed water quality monitoring (NTN or nontidal network). With appropriate sampling protocols and quality assurance, quality control procedures in the field, lab and data management, appropriate loads and trends for pollutants could be computed for

the county. Data collected and effectively managed in this rigorous manner would also provide opportunities for further calibrating and validating Chesapeake Bay Program and other (e.g. USGS SPARROW models) watershed models as recognized in your comment.

Comment ID 0746.1.001.005

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Data Source: USGS Open File Report 2007-1372 Changes in Stream Flow, Concentration and Loads in Selected Nontidal Basins in the Chesapeake Bay Watershed, 1985-2006. The measurement nutrient concentrations from New York of average total nitrogen and total phosphorus concentrations were taken at the United States Geological Survey (USGS) gauging station in Towanda, Pa and is represented by the dark red bar in each graph. The red line in the graph represents the average concentrations needed to meet water quality standards in the Bay.

River flow to the Bay in 2006 was 18.5 trillion gallons. To meet the Bay goal of 175 million pounds Total Nitrogen loading to Bay, a Nt concentration of $(175/8.34/18,500.000)$, or 1.13 mg/L and similarly a Pt concentration $(12.58/8.34/18,500.00)$ of 0.082 mg/L are needed.

Monitoring data do not exist for a large part of the developed watershed, particularly the Potomac, Rappahannock, Pamunkey, Mattaponi, James riversheds that are below the fall line (River Input Monitoring-RIMS) stations.

Response

Thank you for providing the above calculation. As described within the Bay TMDL document, allocations of nitrogen, phosphorus and sediment were based on the land-based and air-based sources of these pollutants, not stream concentrations alone.

In response to the comment that “monitoring data do not exist for a large part of the developed watershed, particularly the Potomac, Rappahannock, Pamunkey, Mattaponi, James riversheds that are below the fall line (River Input Monitoring-RIMS) stations”, this statement is not correct.

The fall line separates represents the head of tide on tidal waters of the Bay and tidal tributaries from its nontidal watershed. The tidal Potomac, Rappahannock, Pamunkey, Mattaponi, and James Rivers all have Chesapeake Bay Program long term water quality monitoring stations that have been monitoring 14-20 times per year, throughout the year, typically sampled in all seasons, since 1985. Each river has one or more stations in the region typically characterized as tidal fresh, oligohaline, mesohaline and where it may exist, the polyhaline waters. Further, in Virginia rivers below the fall line, there are volunteer monitoring network sites providing quality assured data to the Clean Water Act 303d water quality standard attainment listing assessments and evaluations. There are also shallow water monitoring stations, submerged aquatic vegetation and benthic invertebrate monitoring program elements in these river systems. Please see section 5.2.1 for a summary of the Chesapeake Bay monitoring network, specifically Figure 5-1 for the network of fixed station monitoring locations.

The Chesapeake Bay Program's nontidal watershed water-quality network (NTN) is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed. This network is an essential component to reporting, tracking, and modeling nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed as it provides the only consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. See Section 5.2.2. of the Bay TMDL document and Figure 5.5 specifically for the distribution of monitoring sites in the watersheds.

The intersection of the two monitoring networks for the entire Bay and basin (Figure 5-1 and 5-5) is comprised of approximately 225 Chesapeake Bay Program monitoring sites with representation throughout the basins of concern here with additional volunteer monitoring network contributions approved by VADEQ. Still further, as one example of other critical monitoring data in the watersheds, benthic invertebrate sampling is also used to index stream habitat conditions. Across the Chesapeake Bay basin, over 10,000 data points were contributed to an assessment of Chesapeake Bay watershed stream health including many sites in Virginia related to the Potomac, Rappahannock, Pamunkey, Mattaponi and James riversheds above and below the fall line. Abundant and diverse data are available for the Virginia watersheds of interest. All data mentioned in this response are available through the Chesapeake Bay Program's web site at <http://www.chesapeakebay.net> or summarized and interpretations available through Chesapeake Bay Program Office communication products.

25.2 - TIDAL WATERS (BAY AND TIDAL TRIBUTARIES)

Comment ID 0259.1.001.003

Author Name: Jackson Marjorie

Organization: The Elizabeth River Project

5) We commend DEQ's intention to undertake a James River Chlorophyll Study, as indicated in Appendix 2. The tasks appear well-thought out and offer promise for understanding the dynamics of the troubling algal blooms occurring in the James River including those originating in the Elizabeth and Lafayette. We recommend reducing the proposed study and rulemaking period to three years instead of five years. We understand that data has been collected for five years already, using the data flow system from the James River.

Response

EPA agrees with the comment and is committed to working with the Virginia agencies to conduct the study in a scientifically rigorous and timely manner as possible, recognizing the established timeframes within Virginia regulatory adoption process.

Comment ID 0288.1.001.017

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

The historical chlorophyll-a monitoring data are too limited to support the TMDL

The level of data is inadequate for assessment according to EPA guidance. Data from the monthly fixed site data collection program from 1991-2000 was used as the TMDL base-line. Although the data is considered appropriate for monitoring of general status and trends (for which it was designed), it is considered too coarse to reliably support a TMDL with such high cost implications. For example, most James River segments are characterized by only 2 stations per river segment per month and the TMDL is constructed to address each water body segment individually. Because chlorophyll-a has been shown to be spatially patchy and dynamic [FN63] basing the segment interpolation (the basis for non-attainment calculations) on only a few stations would lead to unrepresentative results (see example in Figure 3) - especially during periods that the algae blooms are initiating, peaking, or dissipating. Because of these issues, the EPA has established in guidance that an "adequate" assessment of chlorophyll-a should employ a combination of fixed sites and DataFlow (EPA 2003). Also, according to EPA 2003, "the uncertainty associated with assessment of chlorophyll a criteria attainment using only the fixed station monitoring program would be expected to be quite high."

[Figure 3. Please see original document 0288.1]

To address these issues, one of VAMWA's members, HRSD, has been conducting weekly DataFlow (DFLO) on the lower James River (JMSMH and JMSPH) segments since March 2005. Monitoring of the LAFMH and ELIPH segments was added in March 2008. The Virginia Institute of Marine Science has been conducting DFLO cruises on JMSTF1, JMSTF2, and JMSON segments on a monthly schedule. The VIMS and HRSD DFLO data, made available on the Virginia Estuarine and Coastal Observing System (VECOS) <http://www2.vims.edu/vecos/> in combination with traditional fixed sites, have been used by the VADEQ in order to improve the reliability of the resulting assessment. To evaluate the effect of the DFLO data collection on the regulatory assessment of James River chlorophyll standards, the VADEQ assessed the 303(d) results both with and without DFLO information.

The most recent results from the draft 2010 Integrated Report indicate that the regulatory outcomes (i.e., pass-fail) remained the same. However, non-attainment rates were consistently reduced by DFLO in all of the James River segments by an average of 6% (Figure 3a). The potential impact associated with the use of DFLO on the TMDL dataset (1991-2000) is not possible to determine because the DFLO technology did not exist at the time. However, the comparison above suggests that the use of only fixed-site data in the TMDL caused the allocations to be lower (and predicted non-attainment higher) than would have resulted if data would have been collected as EPA recommends. If DFLO is required for a chlorophyll-a water quality standards attainment assessment to be adequate, failure to include DFLO data will result in an inadequate attainment assessment.

[Figure 3a- please see original document 0288]

Differences in non-attainment rates (between fixed sites and DFLO) are believed to be due to the number of sampling points evaluated and their relative influence on the resulting spatial interpolation step used in the assessment. Experience has shown that weekly data collections with DFLO data are essential to adequately capture bloom dynamics (initiation, peak, and dissipation) over the dimensions of space and time under which they occur. Improvement resulting from the use of DFLO data varies from cruise to cruise depending on the level of "patchiness" observed in chlorophyll-a distributions.

F. Chlorophyll-a conditions in the lower estuary do not correlate with nutrient reductions accomplished to date

Dauer and others (2008) provide an analysis of long term trends and nutrient loadings for the James River from 1985 to 2007.[FN64] The results indicated increasing chlorophyll-a trends in the James River mouth (JMSPH segment) and no trends in the JMSMH segments. These increasing trends in chlorophyll-a exist despite considerable progress made in achieving point source nutrient reductions below the fall line. As shown in Figure 4, below fall line PS TN loads decreased from approximately 22.5 mpy in the mid 1980's to about 12.5 mpy in the most recent 5 years (~44% reduction). Reductions in below fall line PS TP loads decreased approximately 2.5 mpy (77% reduction). These trends are consistent with Chesapeake Bay Model runs that compare 1985 and 2007 Progress point source nutrient loads below the fall line. Dauer and others (2008) report those reductions as 38% for TN and 74% for TP. This level of nutrient reduction is considerable and represents capital expenditures of hundreds of millions of dollars without improvements in chlorophyll-a, which is the indicator being used to represent designated uses in regards to nutrients.

[Figure 4- please see original document 0288.1]

The available monitoring data brings into serious question the ability to predict chlorophyll-a levels in the lower James River with existing models. It is necessary to gain a better understanding of the system's drivers given the level of uncertainty that presently exists with regard to expected response. One critical area of research is the chlorophyll-a response in the James River associated with point source projects planned to meet the 2005 Water Quality Management Regulation. These nutrient controls are scheduled and will be completed by 2011. This offers an excellent full-scale opportunity to further study the effects of additional point source nutrient reduction on chlorophyll a levels and response of HABs. These efforts along with the stated needs for improving the chlorophyll a standards are fully consistent with the principles of adaptive management supported by EPA.

[FN63] See EPA 2003 (attached hereto as Appendix 23). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A23]

[FN64] Analysis attached hereto as Appendix 36. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A36.]

Response

See response to comment 0230.1.001.033.

EPA recommends the commenter look to the Potomac River basin to better understand the magnitude of nitrogen and phosphorus reductions needed to cause a significant reduction in algal biomass measured as chlorophyll. Decades of significant wastewater treatment facilities technology upgrades well beyond those in place today in the James River watershed complimented by widespread nonpoint source reduction best management practices, decadal trends in the chlorophyll a concentrations and reductions in bloom conditions are visible to the reader.

[See Attachment 1 to the Response to Comment document for the figure titled "Potomac Tidal Fresh Chl a Monitoring Data."]

The above figure from the Bay TMDL report illustrates tidal Potomac River chlorophyll a monitoring data compared with the District's chlorophyll a water quality criteria. DC station PMS44 is on the Potomac River at the Woodrow Wilson Memorial Bridge

(50 meters upstream of the draw span). The Maryland station TF2.1 is on the Potomac River at Buoy 77 off the mouth of Piscataway Creek. This is just one time series plot illustrating changes in chlorophyll a concentrations over the past 10 years in a monitoring record that extends to 25 years. Clear evidence of significant reductions in the magnitude and frequency of algal blooms (concentrations over 30-40 ug/L) and a drop in the monthly and seasonal average chlorophyll a concentrations over time.

[See Attachment 1 to the Response to Comment document for the figure titled “Surface Chlorophyll a 1985-2009.”]

Above is another figure from the Bay TMDL report illustrating a comparable series of chlorophyll a data from the tidal fresh region of the tidal James River, where Virginia’s water quality standards apply a very similar summer seasonal average chlorophyll a criterion, 23 ug/L, to the District’s summer seasonal average chlorophyll a criterion of 25 ug/L. These two tidal fresh sections of two large tributaries to the Bay are very similar ecosystem with essential the same criteria applied, yet the time series of chlorophyll a concentrations are completely different.

Given these well known findings, EPA ran a series of series to understand what the tidal James River’s chlorophyll a response would be at nitrogen and phosphorus level at equivalent levels of effort—similar levels of wastewater treatment technologies, comparable levels of nonpoint source best management practice implementation, etc. At a level of effort equivalent to the Potomac River basin, nitrogen loads to the tidal James River would be reduced to 22.1 million pounds per year and phosphorus load reduced down to 2.22 million pounds per year, resulting in full attainment of Virginia’s James River chlorophyll a water quality standards. EPA set the allocations for the James River basin above these levels at 23.5 and 2.35 million pounds per year nitrogen and phosphorus, respectively.

With current estimated loads around 30.4 and 3.23 million pounds per year of nitrogen and phosphorus, respectively, the lack of a full response—significant responses in the seasonal average concentrations and reductions in the magnitude and frequency of algal blooms should come as no surprise. The tidal James River is still a significantly over nutrient enriched estuarine system that requires significant further reductions in nitrogen and phosphorus to reach a more ecological healthy state (i.e., achievement of Virginia’s James River chlorophyll a water quality standards).

Comment ID 0288.1.001.018

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

G. Recent monitoring data shows that higher allocations than those proposed by USEPA may achieve chlorophyll-a standards in the lower James River region

As part of the James River TMDL chlorophyll-a analysis, EPA recommended that the chlorophyll-a criteria assessment be changed from arithmetic averages to log-transformed (i.e, geometric) means. The VADEQ evaluated the effect of this methods change on 2008 and 2010 303(d) Water Quality Assessments (VADEQ, 2010).[FN65] Their results indicated that the non-attainment rates decreased substantially for the lower James River region. The revised results for the 2010 Assessment (for years 2006-2008) indicated 99-100% attainment for the lower James River segments. Based on these observed results VADEQ believes that the "dissolved oxygen based" James River allocation (TN=26.79 mpy;

TP=2.69 mpy) would also attain the chlorophyll-a standard in this region. According to our analysis the lower James River would likely attain chlorophyll standards at a much higher level of loading than the dissolved oxygen based allocations because model estimates of 2006-2008 delivered TN loads for the James River ranged from 35 to 36 mpy respectively. Source: http://www.chesapeakebay.net/data_modeling.aspx. This considerably higher level of loading was associated with near attainment (99-100%) with chlorophyll standards. These results also demonstrate that our previous recommendation to establish the James River allocations at "Tributary Strategy" level is more than environmentally conservative.

EPA has not provided appropriate justifications for additional reductions in allocation below "tributary strategies." In fact, EPA's position on this point is directly contrary to its own approach used to find the Potomac and Anacostia Rivers in compliance with its chlorophyll-a standards. In the case of the Anacostia River, EPA used an existing non-attainment rate of 4% in the monitoring data to determine compliance based on "other lines of evidence." [FN66] EPA's inconsistency in conclusions here between the Potomac and James rivers demonstrates the arbitrary nature of the EPA's TMDL.

[FN65] Attached hereto as Appendix 33. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A33]

[FN66] Draft TMDL, Sec. 6 at 40.

Response

See response to comment 0230.1.001.035

Comment ID 0575.1.001.003

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

E. The historical chlorophyll-a monitoring data are too limited to support the TMDL

The level of data is inadequate for assessment according to EPA guidance. Data from the monthly fixed-site data-collection program from 1991-2000 was used as the TMDL base-line.

Although the data is considered appropriate for monitoring of general status and trends (for which it was designed), it is considered too coarse to reliably support a TMDL with such high cost implications. For example, most James River segments are characterized by only 2 stations per river segment per month and the TMDL is constructed to address each water body segment individually. Because chlorophyll-a has been shown to be spatially patchy and dynamic [FN 23] basing the segment interpolation (the basis for non-attainment calculations) on only a few stations would lead to unrepresentative results (see example in Figure 3a) - especially during periods that the algae blooms are initiating, peaking, or dissipating. Because of these issues, the EPA has established in guidance that an "adequate" assessment

of chlorophyll-a should employ a combination of fixed sites and DataFlow (EPA 2003). Also, according to EPA 2003, "the uncertainty associated with assessment of chlorophyll a criteria attainment using only the fixed station monitoring program would be expected to be quite high."

[Figure 3a. Please see page 13 of original document 0575.1]

To address these issues, one of VAMWA's members, RRSD, has been conducting weekly DataFlow (DFLO) on the lower James River (JMSMH and JMSPH) segments since March 2005. Monitoring of the LAFMH and EUPR segments was added in March 2008. The Virginia Institute of Marine Science has been conducting DFLO cruises on JMSTF1, JMSTF2, and JMSTF3 segments on a monthly schedule. The VIMS and HRSD DFLO data, made available on (the Virginia Estuarine and Coastal Observing System (VECOS), <http://www2.vims.edu/vecos/>. in combination with traditional fixed sites, have been used by the VADEQ in order to improve the reliability of the resulting assessment. To evaluate the effect of the DFLO data collection on the regulatory assessment of James River chlorophyll standards, the VADEQ assessed the 303(d) results both with and without DFLO information. The most recent results from the draft 2010 Integrated Report indicate that the regulatory outcomes (i.e., pass-fail) remained the same. However, non-attainment rates were consistently reduced by DFLO in all of the James River segments by an average of 6% (Figure 3b). The potential impact associated with the use of DFLO on the TMDL dataset (1991-2000) is not possible to determine because the DFLO technology did not exist at the time. However, the comparison above suggests that the use of only fixed-site data in the TMDL caused the allocations to be lower (and predicted non-attainment higher) than would have resulted if data would have been collected as EPA recommends. If DFLO is required for a chlorophyll-a water quality standards attainment assessment to be adequate, failure to include DFLO data will result in an inadequate attainment assessment.

[Figure 3b. Please see page 14 of original document 0575.1]

Differences in non-attainment rates (between fixed sites and DFLO) are believed to be due to the number of sampling points evaluated and their relative influence on the resulting spatial interpolation step used in the assessment. Experience has shown that weekly data collections with DFLO data are essential to adequately capture bloom dynamics (initiation, peak, and dissipation) over the dimensions of space and time under which they occur. Improvement resulting from the use of DFLO data varies from cruise to cruise depending on the level of "patchiness" observed in chlorophyll-a distributions.

F. Chlorophyll-a conditions in the lower estuary do not correlate with nutrient reductions accomplished to date

Dauer and others (2008) provide an analysis of long term trends and nutrient loadings for the James River from 1985 to 2007,[24] The results indicated increasing chlorophyll-a trends in the James River mouth (JMSPH segment) and no trends in the JMSMH segments. These increasing trends in chlorophyll-a exist despite considerable progress made in achieving point source nutrient reductions below the fall line. As shown in Figure 4, below fall line PS TN loads decreased from approximately 22.5 mpy in the mid 1980's to about 12.5 mpy in the most recent 5 years (-A4% reduction). Reductions in below fall line PS TP loads decreased approximately 2.5 mpy (77% reduction). These trends are consistent with Chesapeake Bay Model runs that compare 1985 and 2007 Progress point source nutrient loads below the fall line. Dauer and others (2008) report those reductions as 38% for TN and 74% for TP. This level of nutrient reduction is considerable and represents capital expenditures of hundreds of millions of dollars without improvements in chlorophyll-a, which is the indicator being used to represent designated uses in regards to nutrients.

The available monitoring data brings into serious question the ability to predict chlorophyll-a levels in the lower James River with existing models. It is necessary to gain a better understanding of the system's drivers given the level of uncertainty that presently exists with regard to expected response. One critical area of research is the chlorophyll-a response in the James River associated with point source projects planned to meet the 2005 Water Quality Management Regulation. These nutrient controls are scheduled and will be completed by 2011. VAMWA believes this would offer an excellent full-scale opportunity to further study the effects of additional point source nutrient reduction on chlorophyll a levels and response of HABs. These efforts along with the stated needs for improving the chlorophyll-a standards are fully consistent with the principles of adaptive management supported by EPA.

G. Recent monitoring data shows that higher allocations than those proposed by USEPA may achieve chlorophyll-a standards in the lower James River region

As part of the James River TMDL chlorophyll-a analysis, EPA recommended that the chlorophyll-a criteria assessment be changed from arithmetic averages to log-transformed (i.e, geometric) means. The VADEQ evaluated the effect of this methods change on 2008 and 2010 303(d) Water Quality Assessments (VADEQ, 2010).[FN 25] Its results indicated that the non-attainment rates decreased substantially for the lower James River region. The revised results for the 2010 Assessment (for years 2006-2008) indicated 99-100% attainment for the lower James River segments. Based on these observed results VADEQ believes that the "dissolved oxygen based" James River allocation (TN=26.79 mpy; TP=2.69 mpy) would also attain the chlorophyll a standard in this region. According to an analysis, the lower James River would likely attain chlorophyll standards at a much higher level of loading than the dissolved oxygen based allocations because model estimates of 2006-2008 delivered TN loads for the James River ranged from 35 to 36 mpy respectively. Source: http://www.chesapeakebay.net/data_modeling.aspx. This considerably higher level of loading was associated with near attainment (99-100%) with chlorophyll standards. These results also demonstrate that establishing the James River allocations at a "Tributary Strategy" level is more than environmentally protective. EPA has not provided appropriate justifications for additional reductions in allocation below "tributary strategies." In fact, EPA's position on this point is directly contrary to its own approach used to find the Potomac and Anacostia Rivers in compliance with its chlorophyll-a standards. In the case of the Anacostia River, EPA used an existing non-attainment rate of 4% in the monitoring data to determine compliance based on "other lines of evidence." [FN 26] EPA's inconsistency in conclusions here between the Potomac and James rivers demonstrates the arbitrary nature of the EPA's TMDL.

[FN 23] See EPA 2003 (attached hereto as Attachment B).

[FN 24] Analysis attached hereto as Attachment N.

[FN 25] Attached hereto as Attachment P.

[FN 26] Draft TMDL, Sec. 6 at 40.

Response

See response to comments 0230.1.001.033, 023.1.001.035 and 0288.1.001.017.

25.3 - QA/QC

Comment ID 0543.1.001.002

Author Name: Boesch Donald

Organization: Chesapeake Research Consortium

It is also recognized Draft TMDL 2 that the monitoring data available for these purposes are of high quality, conforming to rigorous quality assurance/quality control (QA/QC) standards.

Response

EPA concurs with your recognition of the Chesapeake Bay Program Monitoring Program and the quality of the monitoring data. The quality-assured data continue to provide a wealth of information for environmental managers, researchers and citizens throughout the watershed. The Chesapeake Bay Program's quality assurance program is described in the TMDL documentation, Section 5.2.3.

25.4 - DATABASE

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

25.5 - GENERAL/MISCELLANEOUS

Comment ID 0038.1.001.039

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

This summer was the worst summer the county has seen in a long time with regular closures of recreational beaches due to elevated levels of enterococci bacteria. This bacteria is found in animal waste and bacterial levels rise as the water becomes continually warmer through nutrient pollution and algal blooms that insulate the water and reward mammals that stay to feed off of the abundance of algae.

Response

Bacteria closures are certainly of concern as a water quality issue. This Chesapeake Bay TMDL does not specifically address

bacteria as a criteria of water quality attainment. Bacteria counts are tracked and reported by States to the USEPA for its Clean Water Act 303d list of impaired waters. This TMDL does however address animal waste concerns targeted at nutrient loading issues which, coincidentally, can work to help reduce bacteria pollution.

It is indeed a concern that as climate warms that warm seasons will be longer and, if nothing was done about animal wastes, we could have longer seasonal periods for potential bacteria issues.

The Bay TMDL is dealing with nutrient pollution and is geared toward reducing nutrient loading that will also help reduce algal blooms as measured by chlorophyll a levels.

Comment ID 0169.1.001.024

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

Section 5 of the TMDL contains no background information given on the sampling theory used for monitoring the Bay and calibrating the watershed models. Assuming the Bay is no different from other natural features, its characteristics are cyclical. Sampling theory dictates a minimum of 2 samples per cycle; what are the pertinent cyclic parameters having an effect on the Bay, and how do the monitoring periods ensure capturing the data correctly? The monitoring periods have decreased from 20 times per year to 14, but no reason is given as to why this decrease has occurred. There is also no information given on when during the year those monitoring periods occur. If different pollution parameters have different cycles, then the monitoring periods must account for all the cyclic variations.

Response

Your comments speak to modeling, monitoring and their intersection in TMDL work. This response includes a brief review of the components of the Chesapeake Bay set of models as well as further background on sampling distribution and effort for Bay and watershed monitoring programs.

The Chesapeake Bay Water Quality Model consists of a set of submodels for the Bay and Watershed. The Watershed Model incorporates information about land use, fertilizer applications, wastewater plant discharges, septic systems, air deposition, farm animal populations, weather and other variables to estimate the amount of nutrients and sediment reaching the Chesapeake Bay and where these pollutants originate. The Watershed Model divides the 64,000-square-mile Chesapeake Bay watershed into more than 2,000 segments delineating political and physical boundaries. Each segment contains information generated by several sub-models:

- 1) The hydrologic sub-model uses rainfall, evaporation and meteorological data to calculate runoff and sub-surface flow for all land uses, including forest, agricultural and urban lands.
- 2) The surface and sub-surface flows ultimately drive the non-point source sub-model, which simulates soil erosion and pollutant loads from the land to rivers.
- 3) The river sub-model routes flow and associated pollutant loads from the land through lakes, rivers and reservoirs to the

Chesapeake Bay.

Scenario Builder can generate simulations of the past, present or future state of the Chesapeake Bay watershed to explore potential impacts of management actions and evaluate alternatives. Scenario Builder produces inputs for the Watershed Model based on factors from a wide range of land uses and management actions. For example, information such as acres of different crops, numbers of animals and extent of conservation practices is used to generate Watershed Model inputs for agricultural land use types.

The Airshed Model uses information about nitrogen emissions from power plants, vehicles and other sources to estimate the amount of and location where these pollutants are deposited on the Chesapeake Bay and its watershed. That information is fed into the Watershed Model.

The Land Change Model analyzes and forecasts the effects of urban land use and population on sewer and septic systems in the Chesapeake Bay watershed.

The forecasts are based on: Reported changes from the U.S. Census Bureau in housing, population and migration, land cover trends derived from satellite imagery, sewer service areas and county-level population projections. Conversion of forests and farmland development is based on a thorough examination of urban development and land conversion trends derived from satellite imagery dating back more than 25 years.

The Estuary Model examines the effects that pollution loads generated by the Watershed Model have on water quality. In the Estuary Model, the Chesapeake Bay is represented by more than 57,000 computational cells and is built on two sub-models: The hydrodynamic sub-model simulates the mixing of waters in the Bay and its tidal tributaries. The water quality sub-model calculates the Bay's biological, chemical and physical dynamics. Each submodel is calibrated to monitoring information from our region.

Any monitoring program is a balance of system understanding, available resources to distribute monitoring frequency against spatial resolution, and the incorporation of technological advances that can effect efficiency and data density options in the data collection effort. For the Bay and its tidal tributaries, since 1985, the fixed-station water quality monitoring program as described in Section 5.2 of the draft Bay TMDL documentation has consisted of approximately 140 stations sampled 14-20 times per year. This Chesapeake Bay long term water quality monitoring program is designed to provide a long term record of water quality measurements that reflect seasonal and interannual variations. Changes in sampling frequency during a year have fluctuated due to funding resources and Chesapeake Bay Partnership priorities for the distribution of resources available; the most recent changes occurred as a function of a multi-year assessment for a Chesapeake Bay monitoring program realignment. A shallow water monitoring program was deemed most appropriate for assessments of water clarity criteria linked with annual submerged aquatic vegetation monitoring. For chlorophyll the recommendations for monitoring are combined fixed station plus shallow water mapping data. For further details that compare recommended, adequate and marginal levels of monitoring for dissolved oxygen, water clarity and chlorophyll a monitoring and assessment, please refer to Chapter VI: Recommended Implementation Procedures in USEPA (2003) Ambient Water Quality Criteria for dissolved oxygen, water clarity and chlorophyll a for Chesapeake Bay and its tidal tributaries. April 2003. EPA 903-R-03-00. The document is available at the Chesapeake Bay Program publications website: http://www.chesapeakebay.net/content/publications/cbp_13142.pdf.

The Bay data serve as one of the rare and most extensive continuous estuarine water quality monitoring data sets on earth having grown from approximately 10,000 data points collected per year in the 1980s to a current level of over 10 million data points per year for chemical, physical and biological attributes of Chesapeake Bay. These data pass through field, laboratory and database QA reviews according to EPA approved protocols. Data from these data sets are publicly available through the Chesapeake Information Management System housed at the Chesapeake Bay Program Office and are used to calibrate the Chesapeake Bay Water Quality Model.

Further, the Chesapeake Bay Program non-tidal watershed water-quality monitoring network (NTN) is a network of 85 streamflow gages co-located with water-quality sampling sites operating across the watershed. This network is an essential component to reporting, tracking, and calibrating models of nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed. The NTN provides the only methodologically consistent, QA consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. Primary nutrient and sediment load stations are sampled 20 times per year as 12 base flow measurements typically one sample per month to characterize base flow conditions of the annual seasonal cycle and 8 storm flow samples, ideally 2 storms per season to reflect storm conditions of the watershed interseasonally. Storm samples are needed to more accurately estimate the amount of nutrient and sediment moved by the elevated storm flow conditions. Because the water quality sampling events are linked to flow gages that track water flow conditions 24 hours a day, 365 days a year, we can understand the relationships of flows and concentrations in producing loads. A subset of stations known as secondary stations only has 12 base flow samples per year, typically collected once per month to characterize seasonal and annual cycles. Concentrations are computed but not loadings at secondary sites, a small subset of full network of stations. The coordinated Chesapeake Bay watershed NTN network was instituted in 2004, however, a subset of the stations have longer data histories started by other agencies or institutions. There are further more stations that have valuable time series but were discontinued as data collection sites for varied reasons. This additional abundance of quality assured data serves to calibrate and validate the water quality dynamics for the watershed model.

Comment ID 0256.1.001.011

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

LGAC strongly recommends that local water quality data be incorporated into the requirements for the Phase 2 WIPs and that monitoring protocols be established and funded to assess progress of reductions in pollutant loads at each sub-watershed.

Response

Please refer to response to comment 0146.1.001.011

Comment ID 0285.1.001.005

Author Name: Rebecca Sutton and Craig Cox

Organization: Environmental Working Group

EWG's recent research on Chesapeake Bay, to be released shortly, centers on mapping and analysis of soil test phosphorus data available from land grant universities for all counties in the watershed, spanning six states. Healthy plants require appropriate levels of available phosphorus in soil, but this nutrient builds up in the soil over time if more is applied in manure or fertilizer than crops require. As soils become overloaded, they reach a tipping point and begin to readily release this persistent pollutant, poisoning local aquatic ecosystems as well as the bay.

EWG's maps show for the first time just how widespread "excessive" levels of phosphorus are in the region - levels far in excess of what crops need to thrive and likely to cause environmental damage, according to parameters developed by each state. Our analysis indicates that in one of every five counties in the watershed, more than half the soils tested contained these "excessive" levels. These overburdened counties are located in all six states. Although such soils are already potentially dangerous sources of pollution, farmers are often permitted to apply additional phosphorus-rich manure, sewage sludge or fertilizer.

Response

Thank you for your comment regarding data availability for soil phosphorus in the watershed. Geographic and source specific phosphorus waste load and load allocations are part of the Chesapeake Bay TMDL as phosphorus loading to the Chesapeake Bay is recognized as a contributor to water quality conditions being out of attainment. Targeting BMP activities at areas with high nutrient and sediment yields is a means of strengthening the measurable return on restoration investment. EPA has since received a copy of EWG's report and has shared it with its Chesapeake Bay Program partners.

Comment ID 0388.1.001.003

Author Name: Legg Peter

Organization: Advocates for Herring Bay (AHB)

Ultimately, the only credible metrics for success will be tangible improvements in the quality of the water and aquatic and terrestrial habitats of the Chesapeake Bay. To ensure progress, the state must test the real-world performance of new technologies and verify that strategies are actually being deployed and performing as predicted.

Response

Thank you for your concern about measures of success of recovery progress for aquatic and terrestrial habitats of the Chesapeake Bay.

The Chesapeake Bay Program partners has made a long term investment in monitoring of the tidal waters and the free flowing streams and rivers now well into its third decade. The partnership has long relied upon a balance of scientific understanding, monitoring and assessment, and application of modeling tools to help support its decision making. But the bottom line—restoration

of water quality to the Chesapeake Bay and a healthy Chesapeake Bay watershed ecosystem—will always be measured through monitoring observations.

Any monitoring program is a balance of system understanding, available resources to distribute monitoring frequency against spatial resolution, and the incorporation of technological advances that can effect efficiency and data density options in the data collection effort. For the Bay and its tidal tributaries, since 1985, the fixed-station water quality monitoring program as described in Section 5.2 of the draft Bay TMDL documentation has consisted of approximately 140 stations sampled 14-20 times per year. This Chesapeake Bay long term water quality monitoring program is designed to provide a long term record of water quality measurements that reflect seasonal and interannual variations in such parameters as dissolved oxygen. Changes in sampling frequency during a year have fluctuated due to funding resources and Chesapeake Bay Partnership priorities for the distribution of funding resources available. A shallow water monitoring program was deemed most appropriate for assessments of water clarity criteria linked with annual submerged aquatic vegetation monitoring via aerial photograph interpretation. For chlorophyll a, the recommendations for monitoring are combined fixed station plus shallow water mapping data. For further details that compare recommended, adequate and marginal levels of monitoring for dissolved oxygen, water clarity and chlorophyll a monitoring and assessment of water quality standards for Chesapeake Bay, please refer to Chapter VI: Recommended Implementation Procedures in USEPA (2003) Ambient Water Quality Criteria for dissolved oxygen, water clarity and chlorophyll a for Chesapeake Bay and its tidal tributaries. April 2003. EPA 903-R-03-00. The document is available at the Chesapeake Bay Program publications website: http://www.chesapeakebay.net/content/publications/cbp_13142.pdf.

The Bay data serve as one of the rare and most extensive continuous estuarine water quality monitoring data sets on earth having grown from approximately 10,000 data points collected per year in the 1980s to a current level of over 10 million data points collected per year for chemical, physical and biological attributes of the Chesapeake Bay and its tidal tributaries and embayments. These data pass through field, laboratory and database QA reviews according to EPA approved protocols. Data from these data sets are publicly available through the Chesapeake Information Management System housed at the Chesapeake Bay Program Office and are used not only for Clean Water Act 303d water quality standards assessments but also to calibrate and validate the Chesapeake Bay Water Quality Model.

Further, the Chesapeake Bay Program non-tidal watershed water-quality monitoring network (NTN) is now a network of 85 stream flow gages co-located with water-quality sampling sites operating across the watershed. This network is an essential component to reporting, tracking, and calibrating models of nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed. The NTN provides the only methodologically consistent, QA consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. Primary nutrient and sediment load stations are sampled 20 times per year as 12 base flow measurements typically one sample per month to characterize base flow conditions of the annual seasonal cycle and 8 storm flow samples, ideally 2 storms per season to reflect storm conditions of the watershed interseasonally. Storm samples are needed to more accurately estimate the amount of nutrient and sediment moved by the elevated storm flow conditions. Because the water quality sampling events are linked to flow gages that track water flow conditions 24 hours a day, 365 days a year, we can understand the relationships of flows and concentrations in producing loads. A subset of stations known as secondary stations only has 12 base flow samples per year, typically collected once per month to characterize seasonal and annual cycles. Concentrations are computed but not loadings at secondary sites, a small subset of full network of stations. The coordinated Chesapeake Bay watershed NTN network was instituted in 2004, however, a subset of the stations have longer data histories started by other agencies or institutions. There are more stations that have valuable time series but were discontinued as data collection sites for

varied reasons. This additional abundance of quality assured data serves to calibrate and validate the water quality dynamics for the watershed model.

Landscape data are collected as well. One example of tracking metrics bridging aquatic and terrestrial would be wetland habitat acreage. Further details of metrics tracked for the Chesapeake Bay and Basin health status and restoration can be found in the Chesapeake Bay Program publication *The Bay Barometer*, most recently published in 2009:

http://www.chesapeakebay.net/news_baybarometer09.aspx?menuitem=50520

Comment ID 0438.1.001.004

Author Name: Johnson Roger

Organization: National Farmers Union (NFU)

I encourage greater cooperation specific to data collection and utilization between EPA and federal partners with an interest in Chesapeake Bay restoration, such as the U.S. Department of Agriculture and the U.S. Geological Survey, as well as relevant state agencies.

Response

Thank you for your recommendation for greater cooperation among agencies and institutions across the Chesapeake Bay Program partnership. That is exactly what the President's Chesapeake Bay Executive Order is calling for. There two Memorandum of Understandings now in place between USDA and USGS directed towards significantly improving data collection and data sharing with the larger partnership. Both MOUs are focused on USGS having direct access to actual conservation practice data and making it available at a variety of geographic and jurisdictional scales to partners and the public at same time preserving the business confidentiality of individual producers. One MOU is with the Farm Services Agency and one MOU is with NRCS.

The data will remain privacy protected, however, analyses conducted across agencies and presented as consolidated results protecting that privacy will provide important advances in science and critical feedback for adaptive management across the watershed are being addressed here. EPA looks forward to even greater cooperative efforts across key agencies and institutions with the best interest of efficient and effective Chesapeake Bay restoration in mind supported by the best available data and resulting advances in restoration science.

Comment ID 0467.1.001.018

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

1. What are the results of sampling the Susquehanna River at the Mason-Dixon Line? Please describe the scope and extent of the data.

Response

Thank you for your interest in the monitoring results for the Susquehanna River.

USEPA approved sample collection and analysis techniques are described online at the Susquehanna River Basin Commission (SRBC) website: at

<http://www.srbc.net/programs/CBP/collection.htm>.

The SRBC Nutrient Program website presents a suite of results you can view and access at :

<http://www.srbc.net/programs/CBP/nutrientprogram.htm>.

Look at the Conowingo Dam sampling location specifically for results pertaining to the Mason-Dixon line region you are interested in.

Further interpreted results can be found by looking at the SRBC website in their Technical Report

http://www.srbc.net/pubinfo/techdocs/publication_267/techreport267.htm.

Additional analyses of long term water quality trends have recently been published using a new statistical technique. See information for the Conowingo Dam location located in Figure 14 (lower left corner) for Susquehanna Total Phosphorus trends and Figure 15 (lower left hand corner) for Nitrate+Nitrite long term trends in recently published paper by Hirsch et al. entitled “Weighted Regressions on Time, Discharge, and Season (WRTDS), with an Application to Chesapeake Bay River Inputs” which is available online at <http://onlinelibrary.wiley.com/doi/10.1111/j.1752-1688.2010.00482.x/full>.

Finally, you may be interested in reading the most recent “The State of the Susquehanna” report for a broad look at the watershed's health: <http://www.srbc.net/stateofsusq/chesapeake.htm>.

Comment ID 0467.1.001.036

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 63 BMP Tracking

It is troubling that the exact amount of nutrients and sediment reaching the Bay from Pennsylvania is not known through continuous measurement, but rather estimated by model. For example, the Department asserts that if more BMP's were reported in Pennsylvania, the model would predict that less nutrient and sediment would reach the Bay even if those BMP's had been implemented years ago. Is this assertion true? The point source community monitors its effluent in accordance with their respective NPDES permits. Why does Pennsylvania not monitor what it discharges into the Bay? Previous inquiries indicate that it is not the Department's responsibility to undertake such monitoring, but rather the United States Geological Survey's. Why would the process of adding additional data into a model result in Pennsylvania discharging less to the Bay? This is not scientifically sound and questions the entire TMDL process.

Response

Thank you for your comment. There are a few issues intermingled here that we can sort out and help provide a better understanding of the interaction between monitoring and modeling as it relates to Pennsylvania.

First, Pennsylvania definitely does monitor what it collectively discharges to the Bay. Pennsylvania is a partner in the Chesapeake Bay Program's (CBP) Watershed Monitoring Network, sometimes called the nontidal network or NTN. See Section 5.2.2. of the Chesapeake Bay TMDL document for more information about the NTN and a map of site locations. In short, the CBP NTN is a network of 85 streamflow gages and water-quality sampling sites operated across the watershed. This network is an essential component to reporting, tracking, and modeling nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed as it provides the only consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. EPA, U.S. Geological Survey (USGS), PA Department of Environmental Protection, and the Susquehanna River Basin Commission combine financial and staff resources to collect data that tell us how much and what kinds of nutrients and sediments are moving down the rivers and streams of PA.

Next, the comment actually refers to two different models whether they realize it or not. First, monitoring what comes out of PA's Susquehanna River basin is measured essentially at Conowingo Dam near the PA/MD border. The river flow is measured continuously by USGS. Nutrients and sediment concentrations are measured 20 times per year which largely reflects the balance of available, limited funding resources when we need to monitor 64,000 square miles of Chesapeake Bay watershed at different scales of space and time. Since TMDL is about a load, and there are load allocations, then the definition of a nutrient or sediment load in its simplest form is the nutrient or sediment concentration measured in discrete samples multiplied times the measurement of river flow. That estimates the load at that point in time. To know the total load coming from PA, year round, continuous measures of river flow data are used and combined, using statistics otherwise known as a statistical model, with measures of concentration at points in time filling in the gaps where we don't have concentration data but we know a lot about how flow and concentration are related. USGS has published the statistical method used with the Susquehanna River and you can view that document from 2000, "A revised load estimation procedure for the Susquehanna, Potomac, Patuxent and Choptank Rivers" at <http://pubs.usgs.gov/wri/wri00-4156/wrir-00-4156.pdf>. This is known as The ESTIMATOR model.

The comment also raises a concern regarding BMPs and whether or not accounting for more would result in less nutrients and sediments predicted to reach the Bay. The answer is no and yes. EPA and its partners use the Chesapeake Bay Watershed Model to help predict the loads of nutrients and sediment delivered to the Bay under existing and future management conditions. The model takes into account the tracked and reported BMPs in place across the watershed in simulating existing and future loads. This is a different model than the the ESTIMATOR model that provides estimates of how much nutrient and sediment is coming over the fall line at Conowingo Dam. How much nutrient and sediment coming over the dam is pretty well known because USGS makes direct measurements through out the year, river flow all the time every day, nutrient and sediments on a monthly basis during baseflow conditions and during storm events. The Bay Watershed Model is a model simulates all that occurs with weather, development, agriculture, urbanization, and more and from the interaction of all those activities and processes, it computes the water quality entering the stream on a daily basis over a multiple year hydrologic period. Streamflow and in stream water quality monitoring are used to calibrate and verify the Chesapeake Bay Watershed Model.

Therefore, no, just adding more BMPs to the Chesapeake Bay Watershed Model can't make more nutrient and sediment go away because we have in-stream monitoring data that tells us how much is really there and is used to calibrate the model. On the other hand, incorporating a long term record of tracked and reported BMPs (that are in place on the ground and actually reducing nutrients and sediment) into the process for calibrating the Chesapeake Bay Watershed Model, as was done during calibration of the latest version of the Bay Watershed Model (Phase 5.3), results in a model which better matches the actual in stream monitoring data through time.

Once the model is in tune, calibrated, then you can add BMPs to look for how further much improvement there is in water quality or whether there is any change at all. This is how we predict a change in nutrient and sediments. Adding different BMPs to different areas of the watershed is known as producing a scenario. Each scenario can act as a guide about what to expect if we take certain actions. By running different scenarios in the model we can then compare how much less nutrient and or sediment reaches the Bay and make decisions about what might be approach to take to improve water quality in the local streams, the rivers, and eventually all the way down in the Bay.

EPA agrees that the NPDES permitted municipal and industrial waste water dischargers are monitoring their pollutant contributions to the rivers and streams of the watershed as required by their permit conditions. This data is also used to help calibrate the Bay Watershed Model.

Comment ID 0528.1.001.013

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

B. Data selected to support the conclusions drawn.

The original data is based upon a small portion of the Chesapeake Bay with minimal reporting summaries. It is not representative of the health of the entire Chesapeake Bay. The information as presented has skewed the results, which has driven the concerns with the data.

C. Lack of explanation for sampling methods.

Section 5 of the draft TMDL lacks background information on the sampling theory used for monitoring the Chesapeake Bay and calibrating the watershed models. Assuming the Chesapeake Bay is no different from other natural features, its characteristics are cyclical. Sampling theory dictates a minimum of two (2) samples per cycle. The reporting monitoring periods have decreased from 20 times per year to 14, but no reason is given as to why this decrease has occurred. It is also not known at what times during the year those monitoring periods occur. If different pollution parameters have different cycles, then the monitoring must account for all the cyclic variations.

Response

Thank you for your comments and concerns regarding monitoring and methods in Chesapeake Bay and the watershed.

Any monitoring program is a balance of system understanding, available resources to distribute monitoring frequency against spatial resolution, and the incorporation of technological advances that can effect efficiency and data density options in the data collection effort. For the Chesapeake Bay and its tidal tributaries, since 1985, the fixed-station water quality monitoring program as described in Section 5.2 of the draft Bay TMDL documentation has consisted of approximately 140 stations sampled 14-20 times per year. This Chesapeake Bay long term water quality monitoring program is designed to provide a long term record of water quality measurements that reflect seasonal and interannual variations. Changes in sampling frequency during a year have fluctuated due to availability funding resources and Chesapeake Bay Partnership priorities for the distribution of the funding resources available; the most recent changes occurred as a function of a multi-year Chesapeake Bay Program Science and Technical Advisory Committee run assessment for a Chesapeake Bay monitoring program review and realignment that ended in 2009. In 2003, a shallow water monitoring program was deemed most appropriate for assessments of water clarity criteria linked with annual submerged aquatic vegetation monitoring and funding was shifted away from zooplankton to fill a gap in monitoring water quality habitat in the nearshore zone. For chlorophyll a, the recommendations for monitoring are combined fixed station plus shallow water mapping data. For further details that compare recommended, adequate and marginal levels of monitoring supporting dissolved oxygen, water clarity and chlorophyll a monitoring and assessment, please refer to Chapter VI: Recommended Implementation Procedures in USEPA (2003) Ambient Water Quality Criteria for dissolved oxygen, water clarity and chlorophyll a for Chesapeake Bay and its tidal tributaries. April 2003. EPA 903-R-03-00. The document is available at the Chesapeake Bay Program publications website: http://www.chesapeakebay.net/content/publications/cbp_13142.pdf.

The Chesapeake Bay monitoring data serve as one of the rare and most extensive continuous estuarine water quality monitoring data sets on earth having grown from approximately 10,000 data points collected per year in the 1980s to a current level of over 10 million data points per year for chemical, physical and biological attributes of Chesapeake Bay. These data pass through field, laboratory and database QA reviews according to EPA approved protocols. Data from these data sets are publicly available through the Chesapeake Information Management System housed at the Chesapeake Bay Program Office and are used in calibration and verification of the Chesapeake Bay Program Water Quality and Watershed Models .

Further, the Chesapeake Bay Program's non-tidal watershed water-quality monitoring network (NTN) is a network of 85 streamflow gages co-located with water-quality sampling sites operating across the watershed. This network is an essential component to reporting, tracking, and calibrating models of nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed. The NTN provides the only methodologically consistent, QA consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. Primary nutrient and sediment load stations are sampled 20 times per year as 12 base flow measurements typically one sample per month to characterize base flow conditions of the annual seasonal cycle and 8 storm flow samples, ideally 2 storms per season to reflect storm conditions of the watershed interseasonally. Storm samples are needed to more accurately estimate the amount of nutrient and sediment moved by the elevated storm flow conditions. Because the water quality sampling events are linked to flow gages that track water flow conditions 24 hours a day, 365 days a year, we can understand the relationships of flows and concentrations in producing loads. A subset of stations known as secondary stations only has 12 base flow samples per year, typically collected once per month to characterize seasonal and annual cycles. Concentrations are computed but not loadings at secondary sites, a small subset of full network of stations. The coordinated Chesapeake Bay watershed NTN network was instituted in 2004, however, a subset of the stations have longer data histories started by other agencies or institutions. There are further more stations that have valuable time series but were discontinued as data collection sites for varied reasons. This additional abundance of quality assured data serves to calibrate and validate the water quality dynamics for

the Chesapeake Bay Program Watershed Model as well as other important models used for example in targeting the highest nutrient or sediment yielding regions for focused BMP activities (e.g. USGS SPARROW models - Spatially reference regressions on watershed attributes, see <http://water.usgs.gov/nawqa/sparrow/FAQs/faq.html#1> for more information).

Comment ID 0568.1.001.002

Author Name: Eisel James

Organization: Delaware County, New York

Delaware County is quite familiar with the stewardship of water quality for downstream users. Slightly over 50% of our lands are within the upper Delaware River basin, which is part of New York City's drinking water supply watershed (NYC Watershed). Land use in the NYC Watershed is controlled by the strictest of regulations designed to avoid the need for filtering NYC's water supply, established by the Watershed Memorandum of Agreement of 1997. EPA is a signatory to this agreement. Delaware County immediately recognized the need to create ownership of the NYC Watershed regulations at the local level in order for them to be effective. In an effort to help our communities understand of the importance of water quality protection and its importance to economic vitality, we created the Delaware County Action Plan (DCAP). Finished in 1999, this document and its development established a locally led, multi-agency watershed program that brings sound science to bear on water quality protection throughout the entire county, not just in the NYC watershed, and assists Delaware County's farmer, businesses, and communities in meeting water quality goals while enhancing economic vitality. DCAP and projects under its umbrella are consistent with and complementary to the goals of the Chesapeake Bay program and the TMDL. Not coincidentally, the year after the DCAP was adopted by the Delaware County Board of Supervisors, they also passed a resolution in support of the Chesapeake Bay Program and its effort to improve water quality in the Bay. Since that time, DCAP and other water quality efforts in Delaware County have succeeded in reducing contributions of N, P, and sediment to both the Delaware and Susquehanna River systems. Given our experience with watershed management in the Delaware River basin, Delaware County has a unique perspective on the implications of this TMDL for farmers, businesses, and communities in New York. Our specific concerns are below.

TMDL models and monitoring

DCAP's monitoring and modeling efforts in the Cannonsville Reservoir Basin illuminate the challenges inherent in using models to allocate N&P contributions equitably. Massive amounts of data across spatial and temporal scales were required to create Cannonsville land use models. The monitoring program and the models were designed with the assistance of experts from Cornell University, the New York State Department of Environmental Conservation, NYC Department of Environmental Protection, Pennsylvania State University, USDA, State University of New York-Environmental Science and Forestry, the New York State Department of Health, the Delaware County Soil and Water Conservation District (DCSWCD), the Delaware County Planning Department, the Catskill Watershed Corporation (CWC) and the Watershed Agricultural Program (WAP), referred to as the Scientific Support Group (SSG). The Cannonsville program under the guidance of the SSG used 8 monitoring stations operated in conjunction with 20 locations where bi-weekly grab samples were collected from 1950 until the present day in a 455.12 square mile area to guide the development of land use models. [FN1] Members of the SSG have indicated that even this robust data set is not completely reliable for predicting nutrient losses. Contrast this with the dataset that EPA is using to determine N and

P allocations for New York; data collected over a 21 year period from just one monitoring station, to develop a model to predict nutrient losses from a variety of land uses, over a 6262 square mile area.

[FN1] Watershed Modeling of the Cannonsville Basin using SWAT 2000, Model Development, Calibration and Validation for the Prediction of Flow, Sediment, and Phosphorus Transport to the Cannonsville Reservoir, February 2004

Response

Thank you for your comment regarding modeling and monitoring affecting the allocations for NY.

EPA has received numerous comments that the nutrient allocations to NY are unfair. While the comments and reasons why the commenter believes the allocation to NY was unfair, this response provides EPA reasoning why the allocation to NY is appropriate.

EPA led a dialogue with all watershed jurisdictions, including NY, for over 2 years on the approach that should be used to allocate loadings to all states. While numerous methods were considered, EPA could not arrive at a consensus methodology for all states. The methodology used did enjoy the most agreement of any methodology considered among the jurisdictions.

The methodology used was, in part, based on the loadings expected under current land use and design flows from WWTP facilities. Current land use and design flow of WWTPs is a common approach used in developing TMDLs, including New York. Of the thousands of TMDLs developed in the Bay watershed, EPA is aware of only a few TMDLs that were based on past land use. The reason for this approach is straightforward. That is, in establishing a TMDL, one allocates to various sources contributing to the problem. When developing an allocation approach it stands to reason that the approach should consider the existence of those sources. So to suggest an approach that ‘pretends’ that the population and land use is different than the existing levels is inappropriate in EPA’s opinion.

Consistency with other TMDL practices is one of the reasons why the Bay partner states supported the method for allocating loads to the states that include using existing land use and design flows for WWTPs.

At an October 29, 2009 meeting among all states Principals’ Staff Committee members, including New York, the proposed method was accepted by all states except New York. New York abstained from an opinion during that meeting. Subsequent to that meeting New York and West Virginia expressed their disagreement with the method, citing various reasons.

Having no other method by which to allocate loads among the various jurisdictions, EPA used the method, with two significant exceptions, that gained widespread agreement among the states for the target loadings for nitrogen and phosphorus when these loads were provided to the states in a letter of July 1, 2010. Those exceptions were that EPA provided additional loading to both West Virginia and New York above that loading which those states would have received using the allocation methodology. More specifically, EPA ‘bumped’ the West Virginia allocation by 200,000 pounds per year of phosphorus and the New York allocation by 750,000 pounds per year of Nitrogen. This increase was intended to address the concerns raised but not limited to:

- o New York delivers cleaner water to the bay than other states.
- o New York is losing in population and farming operations over the

years while other states are increasing population.

- o New York's load is attenuated when being 'processed' thru the Susquehanna River on its way to the bay and therefore any reductions in load have less beneficial impact on the Bay.

Some of the comments cited statistics on the low loadings allocated to New York. While these statistics are helpful, the more relevant statistics are the amount of reductions expected of New York.

In that regard a few statistics may be helpful:

- o On a pound for pound basis, New York nutrient loads have a moderate impact on reducing dissolved oxygen in the bay, falling about in the middle of the various states and basins within the watershed.
- o While New York has a moderate impact on the Bay, because of the 'bump' in nitrogen allocation, the New York nitrogen allocation represents the lowest percent of controllable load of any jurisdiction in the watershed. Controllable load was considered by the Bay partners to be the best metric of load by which to make allocations decisions to the states.
- o The 'bump' in nitrogen allocation for New York represents a 25% drop in the loading reduction needed in New York.
- o The allocation for New York represents the second lowest pounds per acre reduction of all states (and the district) in the Bay watershed for both phosphorus and nitrogen.
- o As of 2009, New York lags far behind all other states (and the district) in the bay watershed in upgrading their wastewater treatment plants to control nitrogen and phosphorus.
- o The 2009 loading of nitrogen delivered to the Bay from New York is greater than the delivered loading from West Virginia, Delaware, and the District of Columbia and greater than the delivered load of any two of those jurisdictions combined.
- o The 2009 loading of phosphorous delivered to the Bay from New York is similar to the delivered loading from West Virginia, and greater than the combined phosphorous loading from Delaware and the District of Columbia.

Some commenters mentioned that EPA removed the allocation guide that said 'States that benefit more from a clean Bay must do more'. It is true that, based on extensive discussions with the Bay partners, this guide was removed. A primary reason why this was removed from the methodology used over 7 years ago was based on our improving science of the Bay. That is, when state allocations were established in 2003, the allocation method included an analysis (similar to today's method) that the more impact a state has on impairing the bay on a pound for pound basis, the more controls would be required of that state. While that same guide

applies today there is one critical difference. In 2003, based on less precise available models than today, the states' impacts on the bay were more qualitatively divided into 3 groups; high, medium and low impact. New York was grouped into the high impacting areas that included Pennsylvania in the Susquehanna basin, the western shore of Maryland, and the eastern shore of Virginia. Since there was such a crude qualitative approach to determining state impact, the bay partners used this guide of 'states that benefit from a cleaner bay' to reduce the controls from the upstream states. In contrast, the method used today to determine impact is quantitative, providing a measure of impact for each jurisdiction-basin. This allows one to already build into the allocation analysis the lesser impact that an upstream state may have on the bay. As a result the New York measure of impact is squarely in the moderate range as opposed to the previous high impact.

Furthermore, in EPA's opinion there is quite a neutralizing point to be made to counter the point that benefiting state must do more. That is, those bay states have been suffering the economic and other losses for more than a generation from an impaired Chesapeake Bay and that impairment is the result of loadings from all Bay states.

So the point remains that to restore the Chesapeake Bay, all jurisdictions and all sectors will need to achieve reductions of nitrogen and phosphorous. EPA used its discretion, based on extensive input from the Bay partners, to develop a rational science-based methodology to divide that allowable loading among the bay jurisdictions. To address the concerns raised by the headwater states of New York and West Virginia, EPA provided additional loadings to those states.

The Chesapeake Bay Program non-tidal watershed water-quality monitoring network (NTN) is now a network of 85 stream flow gages co-located with water-quality sampling sites operating across the watershed. This network is an essential component to reporting, tracking, and calibrating models of nitrogen, phosphorus and sediment concentration and loads in the Chesapeake Bay Watershed. The NTN provides the only methodologically consistent, QA consistent, coordinated monitoring effort across all jurisdictions in the Chesapeake Bay Watershed. Primary nutrient and sediment load stations are sampled 20 times per year as 12 base flow measurements typically one sample per month to characterize base flow conditions of the annual seasonal cycle and 8 storm flow samples, ideally 2 storms per season to reflect storm conditions of the watershed interseasonally. There are five stations within the network located within New York's portions of the Chemung and Susquehanna Rivers (not just a single station as referenced in the comment):

- Unadilla River at Rockdale, NY
- Susquehanna River at Conklin, NY
- Susquehanna River near Waverly, NY
- Cohocton River near Campbell, NY
- Chemung River at Chemung, NY

Data from all five stations were used in both calibration of the Chesapeake Bay Watershed Model as well as development of the Chesapeake Bay TMDL.

Comment ID 0588.1.001.001

Author Name: Merrifield Ed

Organization: Potomac Riverkeeper, Shenandoah Riverkeeper

The Potomac Riverkeeper and Shenandoah Riverkeeper would like to thank you for the opportunity to comment on the Draft Chesapeake Bay Total Maximum Daily Load (TMDL). In addition to comments submitted on our behalf by Earthjustice, please consider this our addendum to those comments.

Transparency

In certain areas of the Bay watershed, the TMDL process has an opportunity to keep the public informed about progress being made on a daily - or close to daily basis. Anywhere in the watershed that both flow and pollutant numbers are collected will allow this. An example of this type of public information is to use the load (flow and concentration numbers) information available at Little Falls and Chain Bridge in the Potomac River. Publishing a daily (averaged) load number and keeping a summary towards an annual load number for the more that 11,000 square miles of watershed that is above this point can help focus the public's attention on both the successes and failures of Watershed Implementation Plans.

Although some scientists may balk at making this type of information easily available to the public without first "massaging" it or placing it into a model, the interested public can easily understand the problems with raw data, if any, that could be described to them in the same (web) document that gives the loads.

Since the data are already collected and being used in the Bay TMDL process, the cost of this type of immediate access by the public will be minimal. For the next ten to twenty years the EPA should work to have the public know on a daily basis how we are progressing towards a healthy Bay.

Response

Thank you for the comment regarding the delivery of watershed data to the public in realtime.

Near realtime flow data, where available, is served on the USGS website <http://waterdata.usgs.gov/md/nwis/sw>. You may select the State and then the sites where flow data is available. Such data are recognized as provisional and subject to adjustment based on quality assurance, quality control analyses and procedures.

For the Chesapeake Bay Watershed Monitoring Network, nutrient and sediment data are collected 12-20 times per year at 85 stations across the six states and the District of Columbia. The data are already freely available via the Chesapeake Bay Information System through the Chesapeake Bay Program partnership's website at <http://www.chesapeakebay.net>. Storm sampling is required for the annual load estimates. Load monitoring results are summarized annually. The discrete water samples require laboratory analysis and are therefore not suitable to providing real time or near realtime pollutant load calculations. Details regarding the Chesapeake Bay Watershed Monitoring program and additional information resources are available in the TMDL documentation Section 5.2.2. <http://executiveorder.chesapeakebay.net/file.axd?file=2010%2F9%2FDraft+Chesapeake+Bay+TMDL+Section+5.pdf>

TMDL load targets are developed based on a specific 10-year flow record agreed upon by the partnership (1991-2000). The most

similar comparison to TMDL targets would not be the raw monitoring data but flow normalized monitoring data. Such techniques for data handling, analysis and visualization are cutting edge and just now being developed and published.

The desirable technology to achieve realtime or near realtime load information you envision are sensors that detect pollutants in realtime to allow simultaneous availability of flow and concentration for an instantaneous calculation of load. Realtime insitu nutrient sensors for key water quality constituents like nitrogen and phosphorus (or their fractions) are similarly cutting edge in their development and use. They are expensive. No water quality monitoring sites that are part of the Chesapeake Bay Program Watershed Network have such technology in place at this time.

The vision suggested here is excellent and provides valuable insight into desirable delivery products for public communication and consumption as new technology, analyses, and means of visualization grow with the Chesapeake Bay Watershed Monitoring Network.

Comment ID 0689.1.001.005

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

7. The draft TMDL asserts that "[e]xcessive nutrients in the Chesapeake Bay and its tidal tributaries promote a number of undesirable water quality conditions such as excessive algal growth, low dissolved oxygen ("DO"), and reduced water clarity." The TMDL fails to provide any information or evidence that flows from Pennsylvania contribute to this condition, specifically flows from municipal wastewater treatment plants.

8. Monitoring data presented in the draft TMDL does not demonstrate any relationship between point source discharges and low DO.

9. In the draft TMDL, chlorophyll-a is referred to as an indicator of algae level. However, chlorophyll-a is not always a reliable measure of algal biomass.

10. EPA is mandating that new water quality standards be developed by the tidal states. Has EPA evaluated the long-term impact on the restoration of the Chesapeake Bay under a scenario whereby the newly proposed water quality standards are adopted and implemented by Delaware, the District of Columbia, Maryland and Virginia?

11. The draft TMDL does not address the expected change in DO levels in the Chesapeake Bay Watershed if the draft TMDL is implemented in its current form.

12. The draft TMDL suggests a relationship between concentrations of chlorophyll a and low DO and harmful algal blooms. What is the specific concentration level of chlorophyll a that EPA believes triggers harmful algal blooms?

13. The draft TMDL does not specify whether data provided in Section 4.1 regarding jurisdiction loading contributions are delivered loads or edge-of-stream loads.

Response

Thank you for your various comments regarding the draft TMDL.

Regarding "The draft TMDL asserts that "[e]xcessive nutrients in the Chesapeake Bay and its tidal tributaries promote a number of undesirable water quality conditions such as excessive algal growth, low dissolved oxygen ("DO"), and reduced water clarity." The TMDL fails to provide any information or evidence that flows from Pennsylvania contribute to this condition, specifically flows from municipal wastewater treatment plants.", a TMDL (Total Maximum Daily Load) is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant. Pollutant sources are characterized as either point sources that receive a wasteload allocation, or nonpoint sources that receive a load allocation. Point sources include all sources subject to regulation under the National Pollutant Discharge Elimination System (NPDES) program, e.g. wastewater treatment facilities, some stormwater discharges and concentrated animal feeding operations (CAFOs). Nonpoint sources include all remaining sources of the pollutant as well as anthropogenic and natural background sources. TMDLs must also account for seasonal variations in water quality, and include a margin of safety (MOS) to account for uncertainty in predicting how well pollutant reductions will result in meeting water quality standards.

The objective of a TMDL is to determine the loading capacity of the water body and to allocate that load among different pollutant sources so that the appropriate control actions can be taken and water quality standards achieved. This includes the point source sector in Pennsylvania.

Regarding your concerns that "Monitoring data presented in the draft TMDL does not demonstrate any relationship between point source discharges and low DO.", the TMDL process is important for improving water quality because it links the development and implementation of control actions to the attainment of water quality standards. Existing water quality in Chesapeake Bay shows dissolved oxygen out of attainment. This is a composite effect of point and nonpoint source sectors. The TMDL calculates out the allocations accounting for the impact of nutrient loadings from the various source sectors.

Regarding your concern that "In the draft TMDL, chlorophyll-a is referred to as an indicator of algae level. However, chlorophyll-a is not always a reliable measure of algal biomass.", the scientific basis for Chesapeake Bay chlorophyll criteria was originally published in U.S. Environmental Protection Agency. 2003. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries (Regional Criteria Guidance) April 2003. EPA 903-R-03-002. Region III Chesapeake Bay Program Office, Annapolis, MD. Subsequent updates to chlorophyll criteria basis and assessment protocol guidance have been provided in U.S. Environmental Protection Agency. 2007. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries –Chlorophyll a Addendum. October 2007. EPA 903-R-07-005. Region III Chesapeake Bay Program Office, Annapolis, MD and U.S. Environmental Protection Agency. 2010. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries – 2010 technical support for criteria assessment protocols addendum. May 2010. EPA 903-R-010-002. Region III Chesapeake Bay Program Office, Annapolis, MD.

Regarding your concern that "EPA is mandating that new water quality standards be developed by the tidal states. Has EPA evaluated the long-term impact on the restoration of the Chesapeake Bay under a scenario whereby the newly proposed water quality standards are adopted and implemented by Delaware, the District of Columbia, Maryland and Virginia?", no such mandate

is in place. Fully consistent with the concept of adaptive management, EPA strives to maintain current and updated science associated with criteria development and assessment. As evidenced by its work with the partnership and outside experts from academia, Federal, state, local governments, River basin commissions, NGOs, independent contractors and industry in producing and supporting the Chesapeake Bay estuarine water quality criteria and protocols for their assessment, the criteria assessment procedures published from 2003-2010 replace and otherwise supersede similar criteria assessment procedures originally published in the 2003 Regional Criteria Guidance and the 2004, 2007 and 2008 addenda (U.S. EPA 2003a, 2004a, 2007a, b, 2008). Publication of future addendums by EPA on behalf of the Chesapeake Bay Program watershed jurisdictional partners is likely as continued scientific research and management applications reveal new insights and knowledge that should be incorporated into revisions of state water quality standards regulations in upcoming triennial reviews.

Regarding your concern that "the draft TMDL does not address the expected change in DO levels in the Chesapeake Bay Watershed if the draft TMDL is implemented in its current form.", the TMDL addresses dissolved oxygen levels in Chesapeake Bay where water quality conditions are out of attainment with water quality standards. This TMDL does not specifically address dissolved oxygen levels in waters of the watershed, however, there are many local TMDLs addressing such issues where they exist in the watershed.

Regarding your concern that "the draft TMDL suggests a relationship between concentrations of chlorophyll a and low DO and harmful algal blooms. What is the specific concentration level of chlorophyll a that EPA believes triggers harmful algal blooms?", chlorophyll is not really considered as a trigger for harmful algal blooms, in many but not all cases, nutrients can provide triggers to harmful algal blooms. Harmful algal blooms represent a phenomenon that involves a range of species. What was illustrated in U.S. Environmental Protection Agency. 2007. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries – Chlorophyll a Addendum. October 2007. EPA 903-R-07-005. Region III Chesapeake Bay Program Office, Annapolis, MD for Microcystis blooms, a proven toxin producing cyanobacteria found in the tidal fresh and oligohaline (i.e. slightly salty) waters with proven health risk implications to animals and humans, is that a chlorophyll threshold is reached where the likelihood of blooms with sufficient toxin can be present as a health risk. The analysis used Chesapeake Bay data and had comparable findings to other peer reviewed and published scientific findings across the globe. This Chesapeake Bay long term water quality monitoring program has sufficient resolution relative to the dynamics of this species that good science was established for water quality maintained below the recommended criteria that the probability of harmful conditions would be limited. Beyond this case study, USEPA 2007 provides scientific background as a reference to the available information on chlorophyll and Harmful algal bloom relationships when and where such support was available.

Regarding your interest in "The draft TMDL does not specify whether data provided in Section 4.1 regarding jurisdiction loading contributions are delivered loads or edge-of-stream loads" the jurisdiction loading contributions are dealing with delivered loads.

Thank you for your interest and concerns with elements of draft TMDL.

Comment ID 0720.001.002

Author Name: Turna Margaret

Organization: Town of Chenango, Binghamton, New York

The communities of New York State that comprise the headwaters of the Susquehanna and Chemung River watersheds have long recognized their role as partners in the restoration of the Chesapeake Bay. In acknowledgment of that role, New York State has made great strides to improve water quality through stringent regulations and programs in the areas of stormwater pollution prevention and agricultural environmental management, exceeding those mandated by the federal government. As a result, New York State water quality far exceeds that of other jurisdictions in the Chesapeake Bay watershed .

EPA's proposed TMDL imposes disproportionately heavy restrictions on NY. If other states reached the level of performance achieved in New York over the past decade for Nitrogen and Phosphorous, there would be no need for a TMDL. Even if other states in the watershed achieve their mandated allocations, their water would still contain more N and P than New York at present.

Response

EPA has received numerous comments that the nutrient allocations to NY are unfair. While the comments and reasons why the commenter believes the allocation to NY was unfair, this response provides EPA reasoning why the allocation to NY is appropriate.

EPA led a dialogue with all watershed jurisdictions, including NY, for over 2 years on the approach that should be used to allocate loadings to all states. While numerous methods were considered, EPA could not arrive at a consensus methodology for all states. The methodology used did enjoy the most agreement of any methodology considered among the jurisdictions.

The methodology used was, in part, based on the loadings expected under current land use and design flows from WWTP facilities. Current land use and design flow of WWTPs is a common approach used in developing TMDLs, including New York. Of the thousands of TMDLs developed in the Bay watershed, EPA is aware of only a few TMDLs that were based on past land use. The reason for this approach is straightforward. That is, in establishing a TMDL, one allocates to various sources contributing to the problem. When developing an allocation approach it stands to reason that the approach should consider the existence of those sources. So to suggest an approach that 'pretends' that the population and land use is different than the existing levels is inappropriate in EPA's opinion. Consistency with other TMDL practices is one of the reasons why the Bay partner states supported the method for allocating loads to the states that include using existing land use and design flows for WWTPs.

At an October 29, 2009 meeting among all states Principals' Staff Committee members, including New York, the proposed method was accepted by all states except New York. New York abstained from an opinion during that meeting. Subsequent to that meeting New York and West Virginia expressed their disagreement with the method, citing various reasons.

Having no other method by which to allocate loads among the various jurisdictions, EPA used the method, with two significant exceptions, that gained widespread agreement among the states for the target loadings for nitrogen and phosphorus when these loads were provided to the states in a letter of July 1, 2010. Those exceptions were that EPA provided additional loading to both West Virginia and New York above that loading which those states would have received using the allocation methodology. More specifically, EPA 'bumped' the West Virginia allocation by 200,000 pounds per year of phosphorus and the New York allocation by 750,000 pounds per year of Nitrogen. This increase was intended to address the concerns raised but not limited to:

- o New York delivers cleaner water to the bay than other states.

- o New York is losing in population and farming operations over the years while other states are increasing population.
- o New York's load is attenuated when being 'processed' thru the Susquehanna River on its way to the bay and therefore any reductions in load have less beneficial impact on the Bay.

Some of the comments cited statistics on the low loadings allocated to New York. While these statistics are helpful, the more relevant statistics are the amount of reductions expected of New York. In that regard a few statistics may be helpful:

- o On a pound for pound basis, New York nutrient loads have a moderate impact on reducing dissolved oxygen in the bay, falling about in the middle of the various states and basins within the watershed.
- o While New York has a moderate impact on the Bay, because of the 'bump' in nitrogen allocation, the New York nitrogen allocation represents the lowest percent of controllable load of any jurisdiction in the watershed. Controllable load was considered by the Bay partners to be the best metric of load by which to make allocations decisions to the states.
- o The 'bump' in nitrogen allocation for New York represents a 25% drop in the loading reduction needed in New York.
- o The allocation for New York represents the second lowest pounds per acre reduction of all states (and the district) in the Bay watershed for both phosphorus and nitrogen.
- o As of 2009, New York lags far behind all other states (and the district) in the bay watershed in upgrading their wastewater treatment plants to control nitrogen and phosphorous.
- o The 2009 loading of nitrogen delivered to the Bay from New York is greater than the delivered loading from West Virginia, Delaware, and the District of Columbia and greater than the delivered load of any two of those jurisdictions combined.
- o The 2009 loading of phosphorous delivered to the Bay from New York is similar to the delivered loading from West Virginia, and greater than the combined phosphorous loading from Delaware and the District of Columbia.

Some commenters mentioned that EPA removed the allocation guide that said 'States that benefit more from a clean Bay must do more'. It is true that, based on extensive discussions with the Bay partners, this guide was removed. A primary reason why this was removed from the methodology used over 7 years ago was based on our improving science of the Bay. That is, when state allocations were established in 2003, the allocation method included an analysis (similar to today's method) that the more impact a state has on impairing the bay on a pound for pound basis, the more controls would be required of that state. While that same guide applies today there is one critical difference. In 2003, based on less precise available models than today, the states' impacts on the bay were more qualitatively divided into 3 groups; high, medium and low impact. New York was grouped into the high impacting areas that included Pennsylvania in the Susquehanna basin, the western shore of Maryland, and the eastern shore of Virginia. Since there was such a crude qualitative approach to determining state impact, the bay partners used this guide of 'states that benefit from a cleaner bay' to reduce the controls from the upstream states. In contrast, the method used today to determine impact is quantitative, providing a measure of impact for each jurisdiction-basin. This allows one to already build into the allocation analysis the lesser impact that an upstream state may have on the bay. As a result the New York measure of impact is squarely in the moderate range as opposed to the previous high impact.

Furthermore, in EPA's opinion there is quite a neutralizing point to be made to counter the point that benefiting state must do more. That is, those bay states have been suffering the economic and other losses for more than a generation from an impaired Chesapeake Bay and that impairment is the result of loadings from all Bay states.

So the point remains that to restore the Chesapeake Bay, all jurisdictions and all sectors will need to achieve reductions of nitrogen and phosphorous. EPA used its discretion, based on extensive input from the Bay partners, to develop a rational science-based

methodology to divide that allowable loading among the bay jurisdictions. To address the concerns raised by the headwater states of New York and West Virginia, EPA provided additional loadings to those states.

Comment ID 0724.001.004

Author Name: Bernardo John

Organization: Town of Union, Endwell, New York

The communities of New York State that comprise the headwaters of the Susquehanna and Chemung River watersheds have long recognized their role as partners in the restoration of the Chesapeake Bay. In acknowledgment of that role, New York State has made great strides to improve water quality through stringent regulations and programs in the areas of stormwater pollution prevention and agricultural environmental management, exceeding those mandated by the federal government. As a result, New York State water quality far exceeds that of other jurisdictions in the Chesapeake Bay watershed.

EPA's proposed TMDL imposes disproportionately heavy restrictions on NY. If other states reached the level of performance achieved in New York over the past decade for Nitrogen and Phosphorous, there would be no need for a TMDL. Even if other states in the watershed achieve their mandated allocations, their water would still contain more N and P than New York at present.

Response

EPA has received numerous comments that the nutrient allocations to NY are unfair. While the comments and reasons why the commenter believes the allocation to NY was unfair, this response provides EPA reasoning why the allocation to NY is appropriate.

EPA led a dialogue with all watershed jurisdictions, including NY, for over 2 years on the approach that should be used to allocate loadings to all states. While numerous methods were considered, EPA could not arrive at a consensus methodology for all states. The methodology used did enjoy the most agreement of any methodology considered among the jurisdictions.

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**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 26. Future Growth

Pages 2618 – 2649

26.0. Future Growth	Pages 2618 – 2618
26.1. Allocations for Growth	Pages 2619 – 2622
26.2. Offsetting New or Increased Loadings	Pages 2622 – 2641
26.3. General/Miscellaneous	Pages 2641 – 2649

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

26 - FUTURE GROWTH

Comment ID 0417-cp.001.002

Author Name: Comment Anonymous

Organization:

Pollution loads from growth are the one source of nitrogen and phosphorous bay-wide that is headed in the wrong direction. As the States create their Watershed Implementation Plans, the Environmental Protection Agency should give particular scrutiny to their efforts to minimize pollution from future growth and development.

I support a strong TMDL.

Response

The Bay TMDL includes an expectation that the Chesapeake Bay watershed jurisdictions will develop mechanisms that completely mitigate new and expanded discharges of nutrients and sediment to the Chesapeake Bay. Jurisdictions are expected to identify an allocation for growth or to develop offset and trading programs through which future growth and development projects could mitigate their discharges. EPA is working closely with the jurisdictions to ensure that these mechanisms are in place and operating as intended.

Comment ID 0442.1.001.011

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

Recommendation #8B: Provide Flexibility for Addressing Growth between Sectors

EPA should maximize the options available for local governments and utilities to be able to address the demands of growth in those sectors (i.e., wastewater and stormwater) where they have responsibilities, without invoking premature application of federal 'backstop' measures (ref. Section 10.1 Future Growth).

Response

EPA is working with the Bay jurisdictions to promote growth planning and decision-making that supports the Chesapeake Bay TMDL. The TMDL does not dictate a specific approach to growth, but it incorporates a mechanism to ensure that any new or increased loadings of nutrients or sediment from point or nonpoint sources are offset by reductions in those pollutants from other sources. In this way, the TMDL makes clear the intention that growth is envisioned under the TMDL so long as the nutrient and sediment caps in the TMDL are met and offsets do not result in unintended exceedances of water quality standards elsewhere.

26.1 - ALLOCATIONS FOR GROWTH

Comment ID 0159.001.006

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Further, future growth is not given proper analysis in the state's Watershed Implementation Plans. Maryland's plan, for example, relies on purchasing credits from a credit bank that has yet to be established, and fails to provide for the growth that will naturally occur if the State's economic development plans succeed.

Response

EPA worked with the Bay jurisdictions including Maryland to improve their WIPs with regard to accounting for growth. The TMDL establishes allocations of nutrient and sediment pollution that must be met to achieve applicable Bay water quality standards. To be consistent with these allocations and the TMDL, no new or increased discharges of nutrient and sediment pollution may be authorized unless the TMDL includes an allocation for the new or increased discharge or the new or increased discharge is offset. In the TMDL, EPA has called on the Chesapeake Bay watershed jurisdictions to establish mechanisms that completely offset new and increased discharges of nutrients and sediment to the Chesapeake Bay. To be consistent with the TMDL, jurisdictions must identify an allocation in the TMDL for such growth before such loadings can be authorized or, where no such allocation is made in the TMDL, offset such loadings. EPA is working closely with the jurisdictions to ensure that these mechanisms are in place and operating as intended. In some cases, the jurisdictions will need to develop or expand offset and trading programs to accommodate growth. The Bay jurisdictions are expected to adopt additional measures as necessary to meet the expectation for no net increases in discharges to the Chesapeake Bay.

Comment ID 0202.1.001.008

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

D. Population Growth Distribution within Bay Watershed

It is estimated that the population within the Chesapeake Bay watershed has increased 14.2 million to 17.7 million people from 1990 to 2010, an increase of 3.5 million people over this period. Maryland and Virginia account for most of this population increase, adding 1.3 million and 1.8 million people, respectively. The population within the New York State portion of the Bay watershed stagnated or declined over this same period, with some of the larger municipalities having loss about 20 percent of their population between 1970 and 2000.

Response

EPA agrees that the New York State portion of the Chesapeake Bay watershed has experienced a population reduction in the recent past. EPA worked with New York State to ensure that if this trend reverses and nutrient loadings increase as a result of population growth, the state will implement mechanisms to account for new growth. For more information on the TMDL allocation to New York source see Section 8 of the TMDL and response to comment 0080-cp.001.002.

Comment ID 0228.1.001.014

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The draft WIP states, "Allocations for newly developed land will be set at a level that results in no increase above allowable 2025 average nutrient loads per acre from previous and uses; unless offsets are obtained in the event on-site controls will not fully achieve allowable loads [FN21]." This requirement will result in an allowable loading of 0.26 lb/ac/yr TP [FN22] (based on draft WIP allocations and 2010 acreages), as shown in Table 5, below:

Table 5: Analysis of 2025 Unit TN and TP Loads Across Sectors in Virginia. [Please see page 13 of the original letter (Docket ID 0228.1.001.014).] [FN22][FN23][FN24]

Since the draft WIP allocations for the Urban sector will directly influence upcoming stormwater regulations, it is important to understand the effect various allowable loads will have on pollutants in the Bay (yearly and in 2025). Table 6, below, calculates the difference in yearly loads between an allowable loading rate of 0.26 lb/ac/yr (draft WIP) and 0.45 lb/ac/yr (2010 proposed stormwater regulation).

Table 6: Effect of Stormwater Management Regulations. [Please see page 13 of the original letter (Docket ID 0228.1.001.014).] [FN26]

Table 6 indicates a difference of only 40,000 lbs in the total TP load change (2,700 lb/yr) between the two unit loads currently under consideration for the upcoming stormwater regulations. This is approximately 0.06% of the draft WIP-allocated annual TP load for the Urban sector (3,915,000 lb/yr); it is truly a trivial point of contention [FN27] and can be handled easily through the proposed Nutrient Trading Fund (see Section III.B.5, below).

[FN 21] September 2010 Draft Phase I Watershed Implementation Plan. (Page 13.)

[FN 22] The table also results in an allowable TN load of 2.40 lb/ac/yr, but the proposed stormwater regulations only regulate TP as currently written. Therefore, no further mention of TN is made in this section.

[FN 23] 2025 WIP allocations are from the September 2010 Public Review Draft WIP.

[FN 24] The 2010 sector acreages shown here were received from Russ Perkinson via e-mail on 8/12/2010.

[FN 25] This calculation assumes that "2025 average nutrient loads per acre from previous land uses" are the loads resulting from the straight average of forest and agriculture.

[FN 26] In Virginia for the 2009 Progress model year; based on the Phase 5.3 Chesapeake Bay Model, released 7/21/2010.

[FN 27] In fact, the total load change is only 1% of the yearly allowable load from the Urban sector.

Response

EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange in a manner consistent with the Chesapeake Bay TMDL. EPA has worked and will continue to work closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0381-cp.001.004

Author Name: Thompson Jeff

Organization: Historic East Baltimore Community Action Coalition, Inc. (HEBCAC)

--Pollution loads from growth are the one source of nitrogen and phosphorous bay-wide that is headed in the wrong direction. As the States create their Watershed Implementation Plans, the Environmental Protection Agency should give particular scrutiny to their efforts to minimize pollution from future growth and development.

Response

The Bay TMDL includes an expectation that the Chesapeake Bay watershed jurisdictions will develop mechanisms that completely mitigate new and expanded discharges of nutrients and sediment to the Chesapeake Bay. Jurisdictions are expected to identify an allocation for growth or to develop offset and trading programs through which future growth and development projects could mitigate their discharges. EPA is working closely with the jurisdictions to ensure that these mechanisms are in place and operating as intended.

Comment ID 0606.1.001.006

Author Name: Schmidt-Perkins Dru

Organization: 1000 Friends of Maryland

III. Pollution Loads From Growth Require Particular Attention

The decline of the Chesapeake Bay stems from human activity that has altered the landscape throughout the Bay's 64,000 square mile watershed and all of the Bay states. The population in the watershed has doubled since 1950 (now around 17 million), and much of this growth and development - leveling trees, forests and wetlands and replacing farms with subdivisions and malls -- has taken place close to the Bay or to its sensitive tributaries, harming natural filters that are critical to a healthy ecosystem.

Pollution loads from growth are the one source of nitrogen and phosphorous bay-wide that is headed in the wrong

direction. As the Environmental Protection Agency reported in 2007, increased pollution loads from continued development were outpacing pollution reductions from all other sectors combined.[FN 5]

As the States create their Watershed Implementation Plans, the Environmental Protection Agency should give particular scrutiny to their efforts to minimize pollution from future growth and development.

[FN 5] Environmental Protection Agency, "Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay," September 10, 2007.

Response

The TMDL establishes the expectation that Bay jurisdictions will offset new or increased loadings through a mechanism allowing for quantifiable and accountable offsets of the new or increased load in an amount necessary to implement the TMDL and applicable water quality standards in the Chesapeake Bay and its tidal tributaries. EPA is working closely with the Bay jurisdictions to ensure that this expectation is met.

26.2 - OFFSETTING NEW OR INCREASED LOADINGS

Comment ID 0039-cp.001.003

Author Name: Austin John

Organization:

In order for there to be attainment, future growth must be directed to areas served by advanced wastewater treatment with N & P removal. Areas that cannot be served by regional facilities must either treat to the same levels as the advanced systems or meet the levels through dilution/attenuation by the time the effluent reaches the property boundary. This would result in down zoning areas not planned to be served from one home per ½ acre to one home per 50-100 acres or less in limited growth areas.

Response

EPA is working with the Bay jurisdictions to promote growth planning and decision-making that supports the Chesapeake Bay TMDL. The TMDL itself does not dictate a specific approach to growth, but it incorporates a mechanism to ensure that any new or increased loadings of nutrients or sediments from point or nonpoint sources are offset by reductions in those pollutants from other sources. In this way, the TMDL makes clear the intention that growth is envisioned under the TMDL so long as the nutrient and sediment caps in the TMDL are met and offsets do not result in unintended exceedances of water quality standards elsewhere. EPA is optimistic that economic growth and Bay protection can be mutually supportive.

Comment ID 0270-cp.001.004

Author Name: Wardrop Denice

Organization: Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC)

a. 10.1.1 Designating Target Loads for New or Increased Sources. Sentence 2

Comment: Define "independent oversight." What are the expectations? Who can conduct such oversight? Many programs have third party oversight but they are contracted by the brokers. Would that qualify as "independent"?

b. 10.1.2 Offset Programs. Paragraph 2. Sentence 1

Comment: Define the ambiguous phrase: "public oversight."

c. 10.1.4 EPA's Oversight Role of State Offset Program. Paragraph 2. Sentence 2, "Such oversight generally will be conducted on a programmatic basis, not an individual offset basis."

Response

EPA intends for "independent oversight" in section 10.1.1 of the draft TMDL to mean third-party oversight of jurisdictional offset programs, including by firms under contract to the jurisdictions. In such cases, contracts ideally would specify the authority of the third party to arrive at conclusions without being influenced by the jurisdiction.

EPA intends for "public oversight" in section 10.1.2 of the draft TMDL to mean that jurisdictions should provide information about their offset programs with transparency, detail and explanation sufficient for members of the public to understand the programs, including how individual offset agreements are structured. Jurisdictions should also provide the public with opportunities to comment on offset programs and individual agreements under such programs. A routine process in which the public has the opportunity to comment on and appeal jurisdictions' decisions is the NPDES permitting process under the Clean Water Act. EPA envisions that offsets will often involve an NPDES permitted discharger in the context of that discharger's NPDES permit issuance or reissuance for an expansion of loading of a pollutant of concern.

EPA cannot predict or commit whether its budget will support specific activities in the future. EPA, however, has made protection and restoration of the Chesapeake Bay a priority, including the oversight of offset programs. Successful offset programs are an essential component of achieving the goals of the TMDL.

Comment ID 0270-cp.001.006

Author Name: Wardrop Denice

Organization: Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC)

d. Appendix S. II. Definitions. 4. New or Increased loading

Comment: This definition is ambiguous. Does this definition imply that there can't be any new nonpoint source without offsets to its loadings? For example, this definition implies that no new animal feeding operations would be allowed without sufficient offsets to balance its expected loadings. The definition could also restrict cropping changes with higher than current loads. Thus, could moving to vegetable production from another less intensive loading crop be allowable?

e. III. Common Elements, 5. Credit Calculation and Verification, iv. Accounting rules for inclusion of practices implemented through public cost-share incentives

Comment: This section is vague and ambiguous. Will these practices be treated differently than others? Can expected nutrient savings be traded?

f. III. Common Elements, 6. Safeguards, (d) Ensuring temporal consistency between the period when a credit or offset is generated and when it is used

Comment: What does it mean when it is stated that "offset is generated"? Is the offset generated when it is installed, or when the quality of the receiving water body is improved?

g. III. 6. Safeguards (c) Protecting affected communities from disproportionate harm arising from offsets

Comment: This phrase is not well defined and is open to multiple interpretations. Does "disproportionate harm mean poorer water quality in "hot spots," or some other negative impact or cost? The phrase should be defined more specifically.

Response

Appendix S of the draft TMDL is intended to establish components and principles the Bay jurisdictions will include in their offset programs. With regard to "new or increased loading," the commenter has appropriately interpreted EPA's definition. As noted, point sources and nonpoint sources subject to wasteload and load allocations would be expected to mitigate any increased loadings through the use of offsets.

With respect to projected increases in nutrient loadings from changes in crops, EPA recognizes that jurisdictions will face practical considerations when tracking and identifying when new or increased loadings are expected to occur. Under the TMDL, new or increased loadings for which there are not allocations in the TMDL cannot be authorized unless they are offset. Implementing this policy, particularly for unregulated sources such as crop agriculture will be challenging. EPA recognizes that jurisdictions will have some flexibility in prioritizing and phasing in their programs.

With regard to "accounting practices for the inclusion of practices implemented through public cost-share incentives," EPA acknowledges that the Bay jurisdictions with established offset programs have divergent policies and rules on offsets implemented with public cost-share funds. For instance, Maryland does not allow trading of credits generated through projects funded with

public cost-share funds. This part of Appendix S establishes an expectation that jurisdictions will make their position on this issue clear.

With regard to establishing when the “offset is generated,” jurisdictions typically consider an offset as being generated when the project is actually implemented. Again, EPA expects clarity from the jurisdictions on this matter.

With regard to the Appendix S section on safeguards, EPA’s intent is for the Bay jurisdictions to provide specificity on how they will determine whether offsets would cause disproportionate harm, such as effects on economically disadvantaged communities or populations, and how they will address this matter at the programmatic level and in specific offset arrangements.

With regard to the statement that NPDES permittees should remain accountable for meeting WQBELs in their permits, EPA intends that offset transactions should not compromise the ability of NPDES permittees to meet WQBELs. Given that WQBELs based on wasteload allocations should be included and recorded in NPDES permits, this seems to EPA to be a key element for ensuring the legitimacy of an offset program, and is consistent with EPA’s Water Quality Trading Policy. EPA does not believe this approach compromises the viability of such programs.

With regard to failure or noncompliance with offset agreements, EPA believes that the permitting authority holds the primary responsibility for ensuring that NPDES permit requirements are clear and unambiguous so permit holders understand the terms of compliance, thereby minimizing the risk of failure or noncompliance. Where a permittee is party to an offset or trade, it is important that the permit reflect this fact and that the permittee establish a mechanism such as a contract to ensure it can enforce or otherwise ensure the offset or trade remains valid and in effect for the term of the permit.

Comment ID 0288.1.001.013

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

B. Economic Development

Preserving current POTW allocations is also imperative for future healthy economic growth. Adequate sewer capacity is a critical part of future economic growth. If EPA’s POTW allocations cuts stand, POTWs will not have the ability to serve additional customers, no matter their importance for Virginia’s economic recovery.

While EPA points to the possibility of acquiring "offsets", the fact is that offsets are not widely available and thus not a viable option in Virginia on any meaningful scale. Further, offset development is only in an early developmental stage and is very expensive to implement.[FN40] To the extent that EPA believes POTWs will be able to avail themselves of non-point source offsets and thus be in a position to provide treatment capacity to new customers, VAMWA responds that offsets are not widely available at the present time and thus do not represent a viable option for planning, financing or constructing major public infrastructure.

[FN40] Brent Fults, Managing Member of the Chesapeake Bay Nutrient Land Trust, LLC, a Virginia non-point source

nutrient bank, gave testimony before the U.S. Senate, Committee on Environment and Public Works, Water and Wildlife Subcommittee on August 3, 2009 (attached as Appendix 21) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A21]. According to Fults, "the costs associated with reducing nutrient loading by one pound from an acre of farmland can run into the thousands of dollars." This is because owners of agriculture land expect compensation for the costs of land conversion from agricultural use to forest plus the lost opportunity costs for not farming or developing the converted farmland.

Response

EPA notes that the TMDL allocations have been significantly revised based in part of the submission of the Final Phase I WIPs by the States and consideration of comments including this one. Please see Section 8 of the TMDL. EPA's proposed reductions to POTW allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance demonstrated in draft Phase 1 WIPs. See response to Comment 0067.1.001.009 EPA is responsible for ensuring that nutrient and sediment allocations in the TMDL are based on reductions and measures envisioned in the final Phase 1 WIPs that will be achieved. Continued population growth and development in the Chesapeake Bay watershed without sufficient nutrient and sediment pollution prevention, treatment, and management is largely responsible for the current state of the Bay and the necessity for a TMDL. EPA understands that the TMDL will affect patterns of growth and economic development, including POTW and sewer capacity, in the watershed. Such adjustments are likely to be necessary to achieve the objective of the TMDL, which is to meet applicable water quality standards throughout the watershed.

In the TMDL, EPA has attempted to identify and promote options for the jurisdictions to accommodate growth while meeting the TMDL allocations. Offsets and trading provide an opportunity to use free market approaches to allow new and existing dischargers to meet their allocations by paying for pollutant reductions at another location. These approaches have been implemented in several Bay jurisdictions, including Virginia. Virginia is also seeking to expand its program to make offsets available to a wider range of dischargers. EPA supports this program expansion as discussed in Section 10 of the TMDL, and believes the success of the program expansion, particularly for stormwater and on-site or septic systems, depends on the jurisdiction's success in creating greater demand for load reductions from these sectors. EPA expects that creating additional pressure on sectors that have not traditionally felt a demand to decrease their loadings will stimulate market activity in this area.

Comment ID 0294.1.001.001

Author Name: Haley Mark

Organization: Virginia Nutrient Credit Exchange Association, Inc.

The Nutrient Exchange strongly recommends that the EPA TMDL and the Virginia WIP be made consistent with Virginia's existing point source nutrient allocations as reflected in the Virginia Water Quality Management Planning Regulation, 9VAC25-720, and the Chesapeake Bay Watershed General Permit Regulation (9VAC25-820) and related Registration Lists. The Exchange Compliance Plan is premised on these allocations and any major changes by EPA or Virginia would be highly disruptive to this substantial plan that draws on approximately \$2 billion in capital improvement projects for nutrient purposes and related trading.

At page 10-4 of the Draft TMDL, EPA requested comment on whether its proposed offset provisions for new or increased nutrient or sediment loadings should apply to water quality trades in the Bay jurisdictions generally. The point-point trades under the VADEQ-approved Exchange Compliance Plan are in this latter category. While the TMDL should certainly acknowledge the availability of trading including that of the Nutrient Exchange as an assumption of the TMDL, we strongly advise and request that this specific question be answered "NO". The Nutrient Exchange strongly urges EPA not to apply the Appendix S proposed offset provisions for new/increased loads to existing point-point trading programs such as the Virginia program implemented by the Nutrient Exchange.

Response

EPA appreciates the comment and recognizes Virginia for development of a viable trading program. EPA believes that some existing nutrient allocations, as under the jurisdictions' tributary strategies, may need to be adjusted to meet the Bay TMDL allocations. The degree to which such allocations will need to be adjusted varies by jurisdiction. In general, EPA does not intend to revisit the validity of credits sold or traded prior to the finalization of the Bay TMDL.

EPA disagrees with the comment in part and believes that existing nutrient offset and trading programs should include the elements described in Appendix S of the draft TMDL, but understands that existing programs may require some time to incorporate such elements. EPA is working with the Bay jurisdictions to ensure that they do include such elements in a timely fashion.

Comment ID 0294.1.001.003

Author Name: Haley Mark

Organization: Virginia Nutrient Credit Exchange Association, Inc.

Most importantly, this Virginia point-point trading program is working remarkably well and has been widely praised as a national model, including receiving credit in EPA's own publications. At this time, the Nutrient Exchange urges EPA to limit its consideration of new credit-related policies to the specific issue of offsetting new or increased loads.

Response

EPA appreciates the comment. The TMDL's provisions related to growth are limited to offsets for new and increased loads, but are also concerned with existing programs that oversee such offsets. EPA is working with the Bay jurisdictions including Virginia to ensure that existing nutrient credit trading programs such as the Virginia Nutrient Credit Exchange should be consistent with EPA's expectations as stated in Appendix S of the TMDL.

Comment ID 0294.1.001.005

Author Name: Haley Mark

Organization: Virginia Nutrient Credit Exchange Association, Inc.

-- "Net Improvement Offsets" (Page 10-2) - This item is objectionable in that it requires a source to do more than fully offset its own load. This essentially would penalize one party that is achieving zero-discharge for its new or increased activity, by requiring that party to also clean up for another source that should do so but has not. This violates the most basic notions of fairness and due process, reflects poorly on government, and should be deleted.

Response

EPA disagrees that the concept of “net improvement offsets” is inherently unfair. Several jurisdictions already require offset ratios higher than 1:1 as a means of more quickly achieving water quality standards. EPA does not believe this approach subsidizes noncompliance by sources, as compliance assurance and enforcement programs address such challenges. The TMDL recognizes that jurisdictions may need to establish additional authority to require net improvement offsets as appropriate and generally leaves the jurisdictions some discretion in the implementation of such approaches.

Comment ID 0300.1.001.018

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

According to Section 10.1.2 of the draft TMDL, EPA states that "new or increased loadings of nitrogen, phosphorus, and sediment in the Chesapeake Bay watershed that are not specifically accounted for in the TMDL's WLA or LA will be offset by loading reductions from other sources where such offset credits are generated under programs that are consistent with the definitions and common elements described in Appendix S." VDOT asserts that it is unfair to impose a moving standard for pollutant reduction on the regulated community. If offsets are required, then the TMDL should specify that the offsets would be the responsibility of the party that is introducing a new pollutant source and not the responsibility of other parties.

Response

EPA's intention in this language is to establish that entities generating new or increased loadings would be responsible for ensuring offsets for such loadings. EPA and the Bay jurisdictions assume that the prospect of economic opportunity for some entities will result in the creation and provision of offsets by such entities. Alternatively, polluters may be able to implement their own offsets without involving another party.

Comment ID 0302.1.001.009

Author Name: Williams Nat

Organization: The Nature Conservancy

Beyond the existing safeguards in Appendix S of the TMDL, EPA should consider providing additional requirements in

its offset program to ensure that new loads do not compromise healthy watersheds, as identified through state and federal programs.

Response

EPA is concerned that offset and nutrient credit trading programs not cause water quality or other environmental problems in the Bay watershed. EPA will continue to work closely with the Bay jurisdictions to ensure that such unintended consequences are minimized. Offset and trading programs, furthermore, rely on the principle that the sites and facilities providing offsets or generating credits meet all applicable federal and state regulations, including meeting applicable TMDL allocations and applicable water quality standards. This principle includes avoiding the creation of localized “hot spots” that cause or contribute to the exceedance of local water quality.

Comment ID 0376.1.001.031

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

EPA's Endorsement of the Use of Offsets to Address New and Expanded Discharges is Sensible and Appropriate to Accommodate Future Growth Within the Watershed.

Virginia's WIP explained that the allocations it contained served as a cap; new or expanded dischargers would be required to obtain offsets for their nitrogen and phosphorus loadings before they could discharge. EPA's proposed TMDL retains that concept. VMA believes this is an effective and sensible means of addressing growth.

Response

EPA appreciates and agrees with this comment. EPA is working with the Bay jurisdictions to ensure that offset and trading programs will provide the expected load reductions under the TMDL.

Comment ID 0410.1.001.020

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Will the federal government take part in offset programs that purchase and sell credits with other jurisdictions in order to offset their loads?

Response

EPA's intent in the TMDL is to identify key components that Bay jurisdictions should include in their programs. EPA will continue to work closely with the Bay jurisdictions to ensure that their programs meet the agency's expectations. As part of the Bay protection and restoration effort, federal facilities in the Bay watershed will explore all appropriate avenues of meeting their TMDL allocations.

Comment ID 0418.1.001.016

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

there are a number of states where enforcement of existing policy or law could achieve substantial pollution reductions. Therefore, particularly in the stormwater sector, it is important for Bay states to identify tools to accommodate growth beyond offsets.

Response

EPA agrees that the Bay jurisdictions should explore a range of approaches for handling growth while meeting the Bay TMDL allocations. EPA looks forward to working with the jurisdictions to identify and appropriately implement such approaches.

Comment ID 0418.1.001.031

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Delaware

Delaware does not yet have an offset policy and notes that it needs to develop one in order to provide adequate accountability. This is particularly true since the state views offsets as a "key element in achieving both water quality and quantity goals in this watershed and throughout Delaware." [FN 74] NRDC supports Delaware's outlined approach to establishing baselines that require specific performance measures that are at least as stringent as WLA or LA in the TMDL. We also support many other elements of the Delaware framework, as described in its WIP, though the program is candidly not yet developed in any detail. Currently there is no clear identification of a program to assure baseline compliance for nonpoint sources. The WIP notes the need for such a program for the Phase II WIP, but this effort should be fast-tracked before EPA approves participation in trading.

[FN 74] Chesapeake Interagency Workgroup, Delaware's Phase I Chesapeake Bay Watershed Implementation Plan, at 69 (Draft Sept. 1, 2010).

Response

EPA has worked closely with Delaware to expand the jurisdiction's Phase 1 WIP discussion on developing and offset program. In its final Phase 1 WIP, Delaware provides a detailed schedule for and discussion of its plans for developing and implementing an offset program. EPA looks forward to working with Delaware to ensure that the jurisdiction achieves its goals with regard to developing and implementing this program.

Comment ID 0418.1.001.033

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

West Virginia

West Virginia supports the use of offsets to accommodate growth but there is little detail included on program design or baselines. NRDC supports their position that offsets should be based on delivered loads rather than edge of stream loads to ensure accuracy.

New York

New York takes a conservative approach to offsets. The state's WIP notes, and NRDC agrees, that a strong process to verify and track offsets must be in place before relying on nonpoint source reductions to counterbalance point source increases.

New York is exploring the use of mass balance analysis as a tool for measuring nutrient flows from agricultural operations through a pilot project with the Upper Susquehanna Coalition and Cornell. This program could be a useful tool for establishing and monitoring baseline data on nutrients at the farm level.

Finally, NRDC believes that New York's suggestion that it would achieve "elimination of septic discharges by connection" as a way of offsetting growth in wastewater treatment plants' increased discharge is a reasonable one. Such offsets, of course, need to be consistent with the various principles articulated elsewhere in these comments, in that they must be quantifiable, rigorously and publicly verified, accounted for in the load allocation, and surplus to other requirements (including any program that may exist in the state to promote sewer connection).

Response

EPA appreciates the support expressed in these comments and is working with West Virginia and New York to ensure that their approaches to managing growth under the TMDL will support the jurisdictions' wasteload and load allocations.

Comment ID 0444.1.001.003

Author Name: Allen Paul

Organization: Constellation Energy

Growth in the watershed is continuing and will continue for the foreseeable future; therefore, the Chesapeake Bay TMDL must have a mechanism to allow for growth while still meeting reduction targets and water quality goals. Maryland has already an established program for point source to point source trading (established in April 2008) and is developing complementary programs to administer trading and offsets between point sources and agricultural non-point sources. Furthermore, Maryland plans to use these two programs as a foundation for development of an appropriate framework for other point to non-point source trades (Maryland Watershed Implementation Plan, Executive Summary, p. ES-4). Constellation fully supports the use of offsets and trading as a means of allowing new and expanded discharges while continuing to meet load reductions.

Response

EPA agrees with these comments and is working with Maryland to ensure that its offsets and trading program support and are consistent with its TMDL wasteload and load allocations.

Comment ID 0476.1.001.005

Author Name: Farasy Thomas

Organization: Maryland State Builders Association (MSBA)

5. Beginning in 2011, for construction projects, every new structure in the Bay watershed will need to offset its potential impact on the Bay by purchasing credits from trading and offset programs that have yet to be developed.

6. The TMDL has been set up so that increases in population are not going to have the same levels of new housing available to them, increased pricing and in turn, limit the many financial benefits of new development.

Response

EPA does expect that new or expanded nutrient and sediment discharges in the Chesapeake Bay watershed will be offset so that there is no net increase in such discharges to the Bay. EPA is concerned about unintended consequences of the TMDL allocations, but also acknowledges continued population growth and development in the Chesapeake Bay watershed without sufficient nutrient and sediment pollution prevention, treatment, and management is largely responsible for the current state of the Bay and the necessity for a TMDL. EPA will continue to work closely with the Bay jurisdictions to ensure that such unintended consequences are minimized. EPA understands that the TMDL may affect patterns of growth and economic development, including POTW and sewer capacity, in the watershed. Such adjustments may be necessary to achieve the objective of the TMDL, which is to meet applicable water quality standards throughout the watershed.

Comment ID 0515.1.001.024

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

D. Create or Foster a Bay-Wide Nutrient and Sediment Reduction or Offset Credit Trading Program

A federally-sanctioned credit trading program would provide opportunities to reimburse the costs of environmental improvements made by headwater states and would incentivize voluntary steps beyond minimum "compliance" levels. Thus, a Bay-wide nutrient and sediment reduction or offset credit trading program should be created or sanctioned by the EPA, or another federal agency, and included as an integral part of the TMDL. Because New York's portion of the Bay watershed is relatively small, it does not seem feasible that a viable credit trading program could be established within New York itself. Given that the benefits of any credit trading program would be realized on a Bay watershed-wide basis, we urge the EPA to include provisions to support creation of such a program as a part of the final TMDL. (In suggesting this, we do not mean to imply that the EPA or federal government should administer and control such a program: once sanctioned, we believe that private enterprise can carry-out and service the mercantile functions of such a program).

Response

EPA's current preferred approach to the development and implementation of an interstate nutrient credit trading program would be for the federal government to play a facilitative role as the jurisdictions work together to create such a program. Several Bay jurisdictions, including New York, have valuable experience with nutrient credit trading. New York, in fact, has suggested that its experience with such programs as applied to Long Island Sound would allow it to quickly create such a program for its part of the Chesapeake Bay watershed if circumstances necessitate such a program.

Comment ID 0516.1.001.013

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

9) While reducing agricultural nutrients and sediment loadings may be the immediate challenge as farm pollutants are the greatest source of loadings and the most cost-effective to reduce, offsetting the effects of population growth and development by 100% is essential to maintaining any progress made by other sectors. The EPA should act to include measures to expand MS4 jurisdiction over more developed lands, better septic system requirements, and improved growth control measures as these are essential and the EPA should require that these measures be included in each state WIP along with a requirement for completely offsetting growth related loads elsewhere in each of the 92 waterway segments under the TMDL in each state.

10) A requirement is critically needed for no net increases in stormwater discharge rate, volume, and pollutants for all new development for a 5-year storm. Current state stormwater laws clearly do not accomplish this. The EPA, both

through the MS4 permitting process and requirements for inclusion in each state's WIP, should assure that each state requires and enforces a no net increase in rate, volume, and pollutant loads from all new development. This will require mandatory on-site containment through environmental site design.

Response

The TMDL includes an expectation that the Chesapeake Bay watershed jurisdictions develop mechanisms that completely mitigate new and expanded discharges of nutrients and sediment to the Chesapeake Bay. Jurisdictions are expected to identify an allocation for growth or to develop offset and trading programs through which future growth and development projects could mitigate their discharges. EPA is working closely with the jurisdictions to ensure that these mechanisms are in place and operating as intended. The Bay jurisdictions are expected to adopt additional measures as necessary to meet the expectation for no increases in discharges to the Chesapeake Bay. For more information on MS4 requirements please see response to comment 0265.1.001.013 and 0293.1.001.008.

Comment ID 0530.1.001.003

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

Finally, the TMDL EPA ultimately issues for the Chesapeake Bay watershed will drive the acceptable growth rate for communities within the watershed, including those in Pennsylvania. New growth within Pennsylvania's portion of the watershed will need to offset its pollutant contributions by drawing from an existing pollutant allocation, since the state has failed to set aside such an allocation in its Watershed Implementation Plan (WIP). Therefore, any new growth activities must purchase water quality credits, and an adequate program exists to allow new growth to purchase water quality credits. Without new growth, it is a virtual certainty that the billions of dollars likely necessary to implement the TMDL will not be generated.

Response

EPA agrees that Pennsylvania's offset program provides a valuable resource through which new growth can occur. EPA will continue to work with Pennsylvania to ensure that the program meets EPA's expectations.

Comment ID 0530.1.001.008

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

If progress is to be made in restoring the Bay, all sources of pollution must be addressed and the greatest emphasis must be on the biggest sources of pollution in a cost-effective manner-all the while being guided by accurate science on

the Bay's condition. For example, the agency's focus should be on runoff from agricultural activities, as these are the biggest contributors of nitrogen, phosphorus, and sediment. PBA believes that the "stormwater BMP offsets" proposal included as an appendix to these comments has the potential to cost-effectively address this major source of the Bay's impairment while allowing for desperately needed economic growth to continue. Such an option would allow EPA and the states to work together to develop and implement a coordinated and enforceable strategy for addressing discharges from agricultural activities while accommodating and planning for future growth around the Bay.

APPENDIX PROPOSAL FOR PAYMENT OF A FEE BY LAND DEVELOPERS TO CONVERT OFF-SITE UNFORESTED STREAMSIDE AREAS TO FORESTED RIPARIAN BUFFERS

A new payment of fee option would be included in the model stormwater ordinance endorsed by PA D.E.P., and as part of NPDES regulations for stormwater discharge. The fees would be used for planning and physical installation of riparian forested buffers off of the developing site. The fee should be used if at all possible along a water way that receives runoff from the land development project, and as close to the project as feasible.

For simplicity, the fee amount would be tied to the amount of increased impervious coverage being created on a site. Existing pre-development (historical) impervious coverage would be credited since it is already generating runoff and hypothetical pollutants and thermal issues. Impervious area is an easily documented land use, and this use generates the most environmental issues (versus land use conversion of meadow to lawn). Proposed pervious pavement (porous concrete and asphalt, or interlocking pavers) would be credited, so there is an incentive for a developer to use such products over traditional pavements. Fees would be paid into a forested riparian buffer creation fund established within each county, to be administered by the county conservation district.

Each county conservation district would study streams in their county and maintain an inventory of areas where forested buffers are desirable. Initial mapping study could be done using recent aerial photos available on the internet; this could be supplemented by drive-by site visits as needed. The county conservation district, or designated entity, would work with landowners, and prepare detailed buffer installation plans, and implement those using the fees collected. Physical installation would most likely be via a hired contractor. Should a county run out of, or not have suitable areas for buffer implementation at a moment in time, the funds could be transferred to counties in a downstream watershed that receives runoff from the developing county.

A land developer would have the option to pay into the fund rather than implement normally required BMPs within the new development. This gives the developer three options:

- Implement BMPs per the BMP Manual (per the current scenario);
- Pay a fee for installation of off-site forest buffers (BMPs), and not implement BMPs on site (whether by choice, or because it is not physically possible to infiltrate due to soil and/or bedrock conditions); or
- A combination of the above: treat some areas on-site, and pay for other untreated onsite areas.

Note that stormwater release rate would still have to be regulated on the site per the municipal (or county) stormwater ordinance (the traditional requirements). Consequently, there would still likely be some treatment of runoff in the traditional detention basins that would be implemented.

The proposed fee schedule is based on information provided by the Dauphin County

Conservation District on a forested buffer project in Dauphin County. Per that study, the cost of installation of one acre of forested riparian buffer is \$2,270. For this proposal, we suggest rounding the cost amount up to an even \$2,300. The simple fee schedule for a developer would be as follows:

Pay \$2,300.00 for each acre of increased impervious area for which BMPs are not being provided per the BMP Manual.

Response

EPA agrees that all sources of nutrients and sediments to the Chesapeake Bay must be addressed for the Bay and its tributaries to meet applicable water quality standards. EPA will consider the proposal for a fee structure for offsets and will share these comments and raise in future discussions with the Bay jurisdictions.

Comment ID 0548.1.001.004

Author Name: Smith Brooks

Organization: Utility Water Act Group

3. UWAG supports EPA's approach to offsets for new or expanding dischargers.

The availability and legality of "offsets" for new or expanded dischargers has been in contention since the controversial Ninth Circuit Court of Appeals ruling in *Friends of Pinto Creek, et al. v. EPA*, 504 F.3d 1007 (9th Cir. 2007). UWAG believes that Pinto Creek was wrongly decided, and we strongly support the use of offsets to account for and manage new or increased loadings of pollutants causing impairment or subject to TMDLs.

The Bay TMDL assumes that the watershed states will accommodate any new or increased loadings of nitrogen, phosphorus, or sediment that do not have a specific allocation in the TMDL with appropriate offsets supported by credible and transparent offset programs subject to EPA and independent oversight. See Bay TMDL at S-1. UWAG supports this assumption, and commends EPA for preserving the use of offsets in the TMDL program.

Response

EPA agrees that offsets are an important tool for the Bay jurisdictions to have available to use to meet their wasteload and load allocations.

Comment ID 0590.1.001.013

Author Name: Chavez Jennifer

Organization: Earthjustice et al.

11. Offsets: EPA's proposal to authorize offsets to facilitate new or increased pollutant loadings to already-impaired waters is unlawful, arbitrary, and very poorly thought out. The Act and EPA provide no authority for offsets. Instead, they direct the establishment of TMDLs, comprised of WLAs and LAs. As noted above, a WLA is to be assigned in the TMDL to an individual point source. If EPA or a state wants to reallocate WLAs in any manner, they must do so by revising the TMDL through a public notice and comment process, not via some sort of ad hoc or case-by-case "offset" process that is not authorized by the Act or EPA rules, and that seeks to circumvent legally adopted WLAs and LAs.

EPA's guidelines for offsets are also unlawful because they provide no assurance that the loading limits required by the Act will be maintained at all times. The proposed guidelines in Appendix S fail to clear and explicit safeguards sufficient to prevent fictitious or overstated pollution reductions from being used as offsets. For example, the proposal appears to contemplate that nonpoint sources will be eligible to be credit generators, but sets no minimum monitoring requirements for such sources that would ensure verification that baselines and reductions from baselines are truly bona fide. Appendix S proposes only a vague requirement for "appropriately quantifying" credits and assuring equivalency, without specifying how. This creates a major risk of reliance on unreliable or unproven estimation techniques that vary wildly from case to case, and that EPA will lack the resources to oversee or validate. Moreover, EPA identifies no mechanism for monitoring or enforcing pollutant reductions used by nonpoint sources to generate credits. Allowing the use of such unenforceable reductions to effectively authorize point source increases that would otherwise violate the Act is itself flatly unlawful, as it effectively converts an enforceable effluent limitation into an unenforceable one. Furthermore, any attempt to allow an existing NPDES permitting to increase its pollution discharge without a permit amendment would violate the Act and EPA's rules, which require formal permit amendment to authorize pollution increases. EPA vaguely suggests various safeguards to protect local receiving water quality, but Appendix S appears to contemplate that the process for providing such protection could occur outside the NPDES permitting or amendment process, therefore illegal diluting the protection provided by existing rules to ensure protection of water quality standards.

Aside from their illegality, EPA cites no factual or reasoned basis for concluding that either the agency or the states can lawfully and effectively implement and oversee an offset program of the sort being proposed here. The agency cites no experience in administering a program of this magnitude, offers no estimate of the resources required from the agency and states to properly implement it, and provides no rational basis for concluding that EPA and states are capable of doing the job right.

Response

EPA disagrees that its offset proposal is "unlawful, arbitrary, and very poorly thought out." The Clean Water Act provides ample authority for permit writers to consider the effect of pollutant offsets when issuing WQBELs in NPDES permits. The most fundamental requirement for an NPDES permit is that it contains limits "necessary to meet water quality standards." CWA 301(b)(1)(C); 40 CFR 122.44(d)(1); 40 CFR 122.44(d)(1)(vii)(A). There is nothing in the CWA that bars a permit writer from considering the effect of pollutant reductions (offsets) generated by another source in deciding what a permittee's WQBEL for the same pollutant should be. It is not necessarily arbitrary (indeed, under the circumstances, it may be quite reasonable) to allow a new discharger to offset its contribution of pollutants with commensurate (and possibly less expensive) reductions from another source, provided that such reductions actually serve to offset the anticipated effects of the new discharge in the applicable waterbody.

While it is true that the TMDL regulations require the allocation of WLAs (and LAs) to individual and in some cases categories of sources, there is nothing in those regulations that precludes EPA (or a State) from establishing, as an “assumption and requirement” of a WLA, that the corresponding WQBEL may rely on documented offsets from another source and in doing so be “consistent with” the WLA’s assumptions and requirements. A State or EPA could hypothetically revise the TMDL and its WLAs everytime the permit authority sought to issue a WQBEL that relied on offsets, but EPA believes that would be an unnecessarily complicated and resource draining exercise. Rather, EPA believes the necessary flexibility can be built into the permitting process by making the need for (and ability to rely on) an offset one of the “assumptions and requirements” of the TMDL’s WLA. The ability of the public to comment on the appropriate use of such an offset is provided for in the NPDES permit issuance process.

The commenter says that EPA's guidelines for offsets are also unlawful because they provide no assurance that the loading limits required by the Act will be maintained at all times. The commenter says that the proposed guidelines in Appendix S fail to provide clear and explicit safeguards sufficient to prevent fictitious or overstated pollution reductions from being used as offsets. EPA disagrees with the comment. As the commenter notes, Appendix S is not a regulation. It is instead guidance that communicates EPA’s expectations for the jurisdiction’s offset programs. As guidance, it cannot by itself “require” that “loading limits required by the Act will be maintained at all times” or prevent “fictitious or overstated pollution reductions from being used as offsets.” However, as communicated in Appendix S, it is EPA’s expectation that offsets will be used appropriately by the jurisdictions, and Appendix S communicates those expectations in a clear and detailed manner. Moreover, EPA in its oversight capacity of the jurisdiction’s NPDES programs, would not stand by while jurisdictions issued permits that relied on “fictitious or overstated pollution reductions.” In the context of this TMDL, it is reasonable for EPA to address the offset issue by communicating clearly its offset expectations, building appropriate reliance on offsets into the framework of the TMDL as WLA “assumptions and requirements,” and using its NPDES oversight authority to ensure that offsets are used appropriately.

Comment ID 0689.1.001.024

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

35. Does EPA expect that all new development within the Chesapeake Bay Watershed obtain offsets from existing sources prior to operation? Will these offsets be required from the same source sector as the new development?

Response

EPA does expect all new development in the Bay watershed to obtain offsets for any new or increased loadings of nitrogen, phosphorus, or sediment projected from such development. The individual Bay jurisdictions will determine whether the offsets will be required to be obtained from the same source sector as the new development, though this has not been the norm in jurisdictions with existing offset programs.

Comment ID 0732.001.021

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

[The document submitted was partially illegible along the right margin. The text below has been reproduced to the greatest extent possible. See EPA-R03-OW-2010-0736-0732 for a copy of this document.]

Chesapeake Bay Foundation Recommendations for Calculating Offsets
September 16, 2010

To achieve and maintain the pollution caps in the Bay's watershed, the States and D.C. must adopt offset policies that will ensure that, while we reduce loads from existing sources, we are not losing ground to new sources. This document provide a framework for how to calculate and track offsets relative to the Bay TMDL and associated Watershed Implementation Plans (WIPs) for each pollution source sector. Key issues include: What sources are included? What are the baseline pollution loads for comparisons? How would such a program be implemented? T underlying assumption is that some version of the state trading programs will provi~ the necessary legal and policy framework for purchasing offsets. The purpose of this document is to lay the framework for what constitutes a "new load" and how it should be quantified.

Offsets must be provided by all new and expanding point and nonpoint sources, including wastewater treatment plants, septic systems, municipal storm sewer systems, private development, and confined animal feeding operations (CAFOs). The basic tenants of the offset policy include:

- 1) All new and expanding private and public sources of pollution should be completely offset above a sector-specific "baseline" condition in place befon a new or expanding pollution loads begins.
- 2) Offsets should be on the ground and generating pollution reductions before they may be acquired, with the possible exception of smaller loads from single family homes, septic systems, and small development sites.
- 3) New loads from new development need to be offset in perpetuity, with the possible exception of smaller loads.
- 4) Offsets must achieve at least a 1:1 ratio, but preferably more. If nonpoint sources are involved, the offset credits required should be consistent with tr states trading policy (e.g., 2:1 in VA).
- 5) EPA should expeditiously develop and maintain the tools the states and locc government will need to estimate new loads and operate programs to delive offsets.

Proposed Policy for Each Pollution Source Sector:

1) Wastewater

Wastewater treatment plants (WWTP): Pollution loads from new or expanded municipal and industrial WWTPs of all sizes (from the largest significant discharge: to small package plants serving single family homes) should be offset. The mechanism for implementation and tracking is via NPDES permits and/or state regulations.

Septic: Loads from new or expanded conventional or alternative onsite septic systems (AOSS) of all size must be offset. This approach ensures consistency and equity across all sources of wastewater and prevents creating an incentive for placement of smaller, de-centralized systems that are inconsistent with local growth plans. An in-lieu fee program may be appropriate for smaller discharges. The mechanism for implementation and tracking should be state/local approval of the system or NPDES permits for systems that discharge to sensitive areas.

In addition, because water reuse, such as use for spray irrigation and industrial cooling water, is likely to become increasingly popular as a mechanism to "offset" additional loads from WWTPs and septic systems, we note that it is inappropriate to assume that nutrient loads from water reuse is zero. There will be some nutrient losses to the environment and these need to be estimated and offset as appropriate.

2) Urban and Suburban Runoff

Active Construction: Existing state construction general permits and related erosion and sediment control programs are woefully inadequate. We recommend that existing state programs be updated and revised by 2011 to ensure consistency with the federal effluent limit guidelines (ELGs) and specifically include more stringent rules for site stabilization and phasing. In the near term, rather than recommend offsets, we recommend compliance with the federal ELGs and improvements to existing programs. In the long term, depending on the success of these efforts to curb pollution from active construction, the issue should be revisited to determine if offsets are necessary. The mechanism for implementation and tracking should be the state CGP and/or local erosion and sediment control programs.

Post-Construction: For new development (i.e., greenfield), the baseline should be a forested condition. Offsets within the subwatershed that maximize pollution reductions, cost efficiency, and consistency with sound land use concepts should be encouraged. Further, note that the model used to simulate baseline and developed condition should be site specific (e.g., something like Nutrient Net, VA's runoff reduction spreadsheet, or Schuler's Environmental Site Design spreadsheet for MD). New loads from development that is 5,000 sq ft or greater should be offset in perpetuity. For projects closer to the smaller end of this size, the offset mechanisms should be flexible so as to not be too onerous, and could include fee in lieu type approach or restoration projects conducted within the community that is being affected. The mechanism for implementation and tracking should be the state CGP and/or state or local stormwater programs.

We are not seeking offsets for new loadings from redevelopment projects at this time as such projects should in the long-term reduce existing pollution loads even with lesser site level requirements than new development projects.

Increased Vehicle Miles Traveled: Emissions from cars, while important, may be difficult to quantify. Consequently, we advocate that the baseline for comparison of new loads from development be conservative because we recognize that we are not accounting for additional loads associated with other activities such as increased vehicle miles traveled.

Grandfathering: We recognize there will be a need to grandfather projects that are already in the permitting process. We recommend that any permits issued after December 31, 2010 be required to offset loads as described above.

3) Confined Animal Feeding Operations (CAFOs)

Confined Animal Feeding Operations (CAFOs) are regulated as point sources under the Clean Water Act. Hence, like other point sources, loads from new or expanding CAFOs must be required to offset new loads of nitrogen, phosphorus and sediment associated with increasing the number of animals in a watershed. Offsets must include all sources of pollution loading including volatilization and subsequent deposition of ammonia-nitrogen.

One approach to achieving this goal for the CAFO sector is to establish technology based effluent limitation guidelines for new or expanding CAFOs combined with an offset program for remaining loads that are technologically and/or

economically unfeasible to reduce through best available control technologies. Producers could be offered the choice of utilizing established loading emissions factors (perhaps on a per animal basis) or providing a professional analysis of loads utilizing EPA accepted estimation methodology.

CBF further suggests that there be a clearly defined process for incorporating new technologies and management practices that achieved enhanced nutrient removal CAFO load calculations.

Response

To date, EPA has left decisions regarding the details and specific mechanisms of offset programs to the Bay jurisdictions. As EPA continues to work with the jurisdictions in the development and implementation of such programs, it will consider the proposals included in these comments.

Comment ID 0747.001.002

Author Name: Hankins Joseph

Organization: Jefferson County (West Virginia) Public Service District

In the case of new sources the offset system must distinguish between the contractual or regulatory commitment of a point-source to acquire offsets for new loads and the actual purchase of the offsets as they are needed. Requiring the upfront full identification, purchase and offset of nutrient loads that are part of a facility modification and design flow expansion that may take years to fully utilize unfairly penalizes utility rate payers. Good financial and environmental accountability are more reasonably met through the laddering and mixing of offset sources over time in a way sufficient to assure annual compliance. Over-purchasing upfront simply increases costs to both the purchasing point-source customer base and any competing point-sources and defeats the market sensibility of the concept.

Response

EPA agrees that the planning for the acquisition of offsets so that regulatory requirements are met and economic impacts are limited is a significant element of a successful offset program. EPA will continue to work with the Bay jurisdictions to improve their offset and trading programs.

26.3 - GENERAL/MISCELLANEOUS

Comment ID 0146.1.001.004

Author Name: Isenberg W.

Organization: Virginia Commonwealth University Center for Environmental Studies. Class: ENVS 601, Professor: P.L. deFur

With relation to the modeling process, there was no mention of population growth and what that would do to land use changes and water demand. I understand the difficulty and added complexity of predicting land use change, but given the fact that urban development has increasingly become a major contributor to Bay nutrient and sediment pollution, this potential should have been explored. Also, as population grows, which in Virginia it is expected to grow a great deal, the issue of increased water demand seemed to be ignored in the modeling. The chosen 10 year hydrologic period may be complicated if water tables yield lower than expected flow. While this may decrease runoff, future development may counteract that with increased impervious surfaces. Therefore, the potential for sudden high discharge events (with urban sediment and nutrient pollution) associated with more impervious surface coupled with drastically lower discharges in summer when vegetation and human demand for water will be at its highest, a recipe for greater summer hypoxia is possible. Given that, I think that the modeling process should have addressed the issue of population growth.

Response

The Chesapeake Bay Land Change Model (CBLCM) forecasts change at the land-river-segment scale. Researchers from the USGS, EPA, Shippensburg University, and a private consultant developed the CBLCM which combines the strengths of GAME (growth allocation model) (Reilly 2003), with those of a cellular automata model, SLEUTH (slope, land use, excluded land, urban extent, transportation, and hillshade) (Clarke et al. 1997; Jantz et al. 2003). These models are used to estimate future landuse.

GAME projects future urban area by fitting total housing unit trends over the 1990s to a Gompertz (exponential S-shaped) curve, which is then used to extrapolate housing trends to the year 2030. County population projections converted to county-scale estimates of total housing demand were used to constrain the modeling segment scale forecasts generated using the Gompertz curve.

The proportions of urban growth occurring on farmland, forest land, sewer, septic, and within existing developed area boundaries were determined uniquely using the SLEUTH urban growth model, a stochastic cellular automata model customized for application in the Chesapeake Bay watershed (Jantz et al. submitted; Goetz and Jantz 2006).

The P5.3 CBLCM uses only GAME to project future development. GAME was updated to include (1) the most recent county-level population projections produced by each state; (2) updates to the Chesapeake Bay Protected Lands Database; (3) consideration of the 2009 population and housing unit estimates produced by the U.S. Census Bureau; (4) recalculation of the relationship between residential lot size and the percent of undeveloped land using the Maryland Department of Planning's 2007 parcel database; and (5) reapportionment of housing attributes from U.S. Census Block Groups to modeling segments using updated census and more accurate roads data.

For more information and to review the P53 land use documentation, visit <http://ches.communitymodeling.org/models/CBPhase5/documentation.php#p5modeldoc>

Comment ID 0200.1.001.009

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- Implementation of the WIPs will necessarily change the land use plans through the comprehensive planning process. However, it is not clear how the process will need to be different and how to incorporate the appropriate factors to achieve targeted reductions. Serious consideration needs to be given to the impact on the ability of a jurisdiction to actually focus growth within designation growth areas with all of these measures in place. The impact on property owners' ability to achieve economically viable use of their land is a key component of the planning process, but also is a key legal consideration.
- Increasing density within designated growth areas (sewered) is not an effective strategy for areas already projected to exceed WWTP caps without increasing density. Offsets will also not work as an option in these areas. Individual sites could develop buildings that have a smaller footprint and therefore are higher in density. However, the number of units on the site overall could not increase without running into problems with exceeding the WWTP caps. In this situation, minor reductions might therefore be realized through decreased building footprints. However, overall, a growth area will not have greater density, just more open space.
- It will be a challenge to determine how to reconcile State and local goals for agricultural land preservation with the need to reduce loads from the agricultural sector, particularly as one of the sectors with the highest percentage of needed reduction. Some additional description of how the State proposes to address this issue from the broader planning perspective would be helpful to incorporate to the document.

Response

EPA is working with the Bay jurisdictions to promote growth planning and decision-making that supports the Chesapeake Bay TMDL. The TMDL itself does not dictate a specific approach to growth, but it incorporates a mechanism to ensure that any new or increased loadings of nutrients or sediments from point or nonpoint sources are offset by reductions in those pollutants from other sources. In this way, the TMDL makes clear the intention that growth is envisioned under the TMDL so long as the nutrient and sediment caps in the TMDL are met and offsets do not result in unintended exceedances of water quality standards elsewhere. EPA is optimistic that economic growth and Bay protection can be mutually supportive.

Comment ID 0252.1.001.010

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

The first specific comment is that the process is so far-reaching, affecting every aspect of development and land use, that the authority to plan, permit, enforce, and comply with new environmental requirements may cause the City to lose its historic prerogative to act locally on matters important to its citizens. This includes land use planning, permitting, and environmental protection.

Response

Please see response to comment 0139.1.001.017

Comment ID 0274-cp.001.002

Author Name: Goldsmith K.

Organization:

Pollution loads from growth are the one source of nitrogen and phosphorous bay-wide that is headed in the wrong direction. As the States create their Watershed Implementation Plans, the Environmental Protection Agency should give particular scrutiny to their efforts to minimize pollution from future growth and development.

Response

The Bay TMDL includes an expectation that the Chesapeake Bay watershed jurisdictions will develop mechanisms that completely mitigate new and expanded discharges of nutrients and sediment to the Chesapeake Bay. Jurisdictions are expected to identify an allocation for growth or to develop offset and trading programs through which future growth and development projects could mitigate their discharges. EPA is working closely with the jurisdictions to ensure that these mechanisms are in place and operating as intended.

Comment ID 0415.1.001.001

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

[Chart 1- NPDES CAFO Rule Implementation Status. Please see pg 1 of original document 0415.1]

[Comment is an attachment. See comment Docket ID 0418.1]

Response

EPA appreciates the information provided.

Comment ID 0450.1.001.008

Author Name: Yates J.

Organization:

5. Within the entire TMDL there is no clear evidence that any state or federal agency can offset the increased pollution load expected to result from the 1.2 million person human population growth expected in the next ten years. Nor is there

a clear exit strategy from the TMDL (which suggests US EPA never expects an end to the process). While that means job security for some, it holds a world of heartache for the rest of us.

Response

Please refer to response to comment 0228.1.001.002.

Comment ID 0460-cp.001.003

Author Name: Comment Anonymous

Organization:

- Pollution loads from growth are the one source of nitrogen and phosphorous bay-wide that is headed in the wrong direction. As the States create their Watershed Implementation Plans, the Environmental Protection Agency should give particular scrutiny to their efforts to minimize pollution from future growth and development.

Response

The Bay TMDL includes an expectation that the Chesapeake Bay watershed jurisdictions will develop mechanisms that completely mitigate new and expanded discharges of nutrients and sediment to the Chesapeake Bay. Jurisdictions are expected to identify an allocation for growth or to develop offset and trading programs through which future growth and development projects could mitigate their discharges. EPA is working closely with the jurisdictions to ensure that these mechanisms are in place and operating as intended.

Comment ID 0501.1.001.003

Author Name: Stainman S.

Organization:

4. EPA should also use its partnership with USDOT, HUD, and the Sustainable Communities Initiative to encourage compliance with the TMDL. This is particularly true with encouraging as much growth to occur under Smart Growth strategies. EPA should work with the programs within HUD and DOT to promote sustainable communities and to prevent and discourage low density sprawl development. Chesapeake Bay clean water goals should be consistent with the other goals of EPA, HUD, DOT.

5. The difference between Smart Growth and typical sprawl or low density suburban development should be fully accounted for in the calculation of nutrient reductions and increases from growth. Smart growth results in less: conversion of permeable surfaces to road construction, runoff and salt from roads, nitrogen air emissions because of reduced vehicle miles of travel. Redevelopment of older urban areas with no or antiquated urban storm water runoff

measures results in reduced nutrients because of more modern storm water management measures and better erosion and sediment control measures.

6. The costs of sprawl development should include emissions from septic systems compared to the efficiencies of connections to waste water treatment plants.

Response

EPA fully intends to continue its partnership in the Sustainable Communities Initiative to support compliance with the TMDL while promoting economic growth consistent with Bay protection and restoration throughout the Bay watershed. EPA is highly supportive of smart growth approaches to development, but looks to the Bay jurisdictions to determine the most appropriate approaches to growth and development within the framework of the TMDL.

Comment ID 0550.1.001.004

Author Name: Pritzlaff Richard

Organization: Biophilia Foundation

Current and future economic activity (development) must be used to help finance current and future pollution load offsets, to achieve Chesapeake Bay TMDL and WQS goals as quickly as possible, as well as provide environmental improvement. EPA and others (Environmental Defense Fund) have GIS based site design analytical tools that can be used to analyze the water quality impacts of development projects. Those impacts that cannot be mitigated economically on-site must be offset off site. This could be done as fee-in-lieu payments ("offset credits" issued by jurisdictions) which represent additional sources of dedicated funds to repays bonds used by jurisdictions to retrofit past stormwater and other point source pollution emissions. Additionally, development projects should also be required to buy "uplift credits" from nonpoint source polluters within the same watershed. Instead of first achieving a "baseline" to be eligible to generate an "uplift credit", each "uplift credit" would need to be bought along with the purchase of an "offset credit" from the nonpoint credit generator. This 3:1 scenario is much easier to achieve near term and with greater market creation potential than what has been proposed by proponents of a "Baseline first" approach.

Biophilia Foundation has been in discussion with several well known agricultural and development interests who approve of this approach. We have also been in contact with a jurisdiction who is interested in developing a demonstration project to test this approach for possible inclusion in their WIP II. If EPA is interested in this project, EPA's participation would be most welcome.

Response

EPA believes that its expectation for offset programs and net improvement offset authority for the Bay jurisdictions where appropriate address the issues raised in these comments. EPA will consider these comments as it works with the jurisdictions in the development and implementation of offset programs.

Comment ID 0553.1.001.007

Author Name: Uzupis John

Organization: Synagro Technologies, Inc.

Sprawl Concerns

Many fear EPA's TMDL approach could actually encourage development sprawl in areas of the watershed with cleaner water. This would run counter to the emphasis of plans such as "smart growth" which aim to limit and confine environmental degradation, rather than spread it around. For example, officials may chose not to extend sewers into areas with aging septic systems because it would increase treatment plant discharge in an area of the watershed with an already borderline TMDL.

Many in agriculture and beyond consider H.R. 5509, introduced by Pennsylvania Congressman Tim Holden, Vice Chairman of the House Agriculture Committee, a common-sense solution that enables economic growth and job creation, as long as states are making progress toward reaching water quality objectives set by the EPA.

HR 5509 Support

--H.R. 5509 is a bipartisan alternative to H.R. 3852 (S. 1816), and provides a practical pathway for agriculture to be part of Chesapeake Bay restoration plans.

--H.R. 5509 provides incentives for implementation of environmental best management practices that go beyond minimum state regulatory compliance requirements.

--H.R. 5509 grants U.S.D.A. oversight of agriculture in the federal clean-up effort.

--H.R. 5509 encourages participation in a nutrient trading program and provides for multi-state trading arrangements.

--H.R. 5509 was unanimously approved recently by the U.S. House Agriculture Committee and reported to the full House with a recommendation for passage.

Response

Please see response to comment 0139.001.001

Comment ID 0571.1.001.004

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

Another troubling requirement is that the TMDL will drive the "acceptable" growth rate for communities within the watershed. New growth will need to offset its pollutant contributions by drawing from an existing pollutant allocation if the state has set aside such an allocation in its Watershed Implementation Plan (WIP), or new growth activities must purchase water quality credits. Right now, if a state has no "growth allocation" set aside in its WIP, no adequate

program exists to allow new projects to purchase water quality credits. Even if such a program did exist, it not only adds a new cost, it also becomes the determining factor for all new growth considerations in the area of the state covered by the TMDL.

Response

EPA recognizes that concerns exist about growth and development implications of achieving TMDL allocations, but also acknowledges continued population growth and development in the Chesapeake Bay watershed without sufficient nutrient and sediment pollution prevention, treatment, and management is largely responsible for the current state of the Bay and the necessity for a TMDL. EPA understands that the TMDL may affect patterns of growth and economic development, including POTW and sewer capacity, in the watershed. Such adjustments should be expected if the objective of the TMDL, which is to meet applicable water quality standards throughout the Chesapeake Bay watershed, is to be achieved.

Comment ID 0731-cp.001.002

Author Name: Jamison Peggy

Organization: Garrett Co. Municipalities

As areas of existing development, the towns will be faced with disproportionate costs to correct or mitigate stormwater issues; yet, all the state's recent initiatives (Smart Growth and Sustainable Communities) encourage development in areas of existing development.

Response

EPA believes that approaches to development and redevelopment that reduce loadings may offer opportunities to lower construction and maintenance costs. EPA disagrees that developed areas face disproportionate costs of regulatory compliance under the Bay TMDL, particularly when infrastructure costs are considered.

Comment ID 0746.1.001.032

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Nutrient Offsetting Requirement

If nutrient offsetting is required in the management of stormwater within MS4s within the New York State portion of the Chesapeake Bay watershed, development within MS4s would become extremely restrictive. Costs to develop within a MS4 would be significantly increased and permitting/approval processes for new development with a MS4 would become more complicated and extended.

The requirements of Retrofitting Existing Stormwater Discharges and Nutrient Offsetting would be restrictive for new development in an area of the Bay watershed that desperately needs to halt its population decline and which needs a reasonable amount of population and economic growth. It would be excessively expensive, and would generally inhibit growth within our southern tier MS4s. Furthermore, it is believed that the restrictive nature of these requirements for MS4s would effectively encourage development outside of the designated MS4 areas. This would place these MS4s communities at a competitive disadvantage with non-MS4 areas and growth/restoration of a MS4 would become increasingly stifled. It would also be contrary to the national policy of encouraging sustainable growth by channeling new growth into existing urban areas.

Response

Please refer to comment 0080-cp.001.002

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category:

27. Trading to Meet WLAs and LAs

Pages 2650 – 2738

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

27 - TRADING TO MEET WLAS AND LAS

Comment ID 0070.1.001.010

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

New technologies that can create electrical generation and power from AMD should be looked at further. Several of these types of projects have been funded in Western PA, but not in the East. The Old Forge Borehole, Jeddo Mine Tunnel, Solomon's Creek Boreholes, Susquehanna #7 Outfall, and other AMD discharges with high volume flows in the other Coal Regions within the Susquehanna River Basin could potentially become income generators and opportunities for economic redevelopment.

EPCAMR has been involved with the USDA, Capital Area Resource Conservation & Development Council, Pennsylvania Environmental Council, Chesapeake Bay Foundation, Foundation for PA Watersheds, Penn-State University, Conservation Districts within the EPCAMR Region, and other partners a few years ago to locate abandoned mine lands in close proximity to the more rural farms that had excess nitrogen and manure wastes from their Concentrated Animal Operations (CAOs) and Concentrated Animal Feeding Operations (CAFOs). EPCAMR provided all of the GIS mapping for the project and conducted the research with Conservation District Chesapeake Bay Technicians to obtain the necessary information to get the totals on the number of CAOs and CAFOs in the EPCAMR Region. Composting facilities and the Co-Generation Facilities in Eastern PA were also mapped. The Manure and Minelands Project was coordinated to be able to put the farmer and the land reclamation entities together to work out some nutrient trading or business transactions that would save them time, resources, and money. Abandoned mine lands need manure because they lack topsoil for the most part and farmers need to dispose of their excess manure to avoid any pollution problems to the streams within their farmland properties. Mushroom compost, horse manure, chicken manure, all have beneficial qualities to land reclamation and AMD remediation, if mixed with the proper constituents and are not too wet. Yet another win-win.

EPCAMR worked with The Conservation Fund and the Keith Campbell Foundation for the Environment earlier this year to provide them with written examples, photographs, and project successes to inform others in the region how they can improve the environment in their communities impacted by abandoned mine lands. My co-worker, Mike Hewitt, and I provided details on project successes related to the effort mentioned in the previous paragraph to Mr. David G. Burke, President of Burke Environmental Associates, and Mr. Joel E. Dunn, Program Coordinator, for Sustainable Chesapeake-The Conservation Fund. These two individuals edited and authored the publication, entitled, A Sustainable Chesapeake: Better Models for Conservation (2010). The book can be found online on The Conservation Fund website at (www.conservationfund.org/sustainable-chesapeake). It is a way to take a look at 31 projects that summarizes the principles of sustainability illustrated by the profiles contained within each project with creativity, outside of the box thinking, a great deal of volunteer time and effort, and much needed partnerships and funding sources to make them stand out from many others around the Chesapeake Bay.

Response

Thank you for this information. EPA is committed to working with the Chesapeake Bay jurisdictions in encouraging new technologies and their applications to environmental improvement. We appreciate this case study reference and will continue to work with our partners in the pursuit of a restored Chesapeake Bay watershed.

Comment ID 0094-cp.001.003

Author Name: Holland L.

Organization: W.T. Holland & Son's, Inc.

TMDL possibly could let farmers sell credits, 2009 was a unusually wet fall we hardly got our crops out and very little cover crop planted, does that mean we would have to buy credits?

Response

Under the Chesapeake Bay TMDL, sectors that exceed their TMDL allocations are called upon to reduce their loadings to the Bay and its tributaries to achieve their TMDL allocations. One method of accomplishing this would be to establish offsets or purchase nutrient credits. The state and EPA would likely look at such instances on a case-by-case basis.

Comment ID 0126.1.001.030

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Farm land preservation will be significantly impaired by planned financial incentives to retire farm land and unrestrained nutrient trading programs funded by urban developers.

Response

Several jurisdictions in the Chesapeake Bay watershed (PA and VA) include in their regulations and/or policies a prohibition on generating credits through the inactivation of farmland. EPA is unaware of the development of unrestrained nutrient trading programs in this watershed. In addition, all future growth must completely offset increases in nitrogen, phosphorous, and sediment loadings. EPA is optimistic that protection and restoration of the Chesapeake Bay is compatible with mechanisms such as offsets and trading.

Comment ID 0159.001.009

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Home builders are prepared to play a role and we know we have to do more; but everyone must get in the game, otherwise the past 25 years of deferring the accomplishment of Bay Clean Up will continue. We support:

--Creating reduction requirements that call for meaningful results from all sectors

Response

EPA agrees that in order to achieve meaningful results, all sectors must be included in TMDL allocation requirements. EPA will work with the Bay jurisdictions through the state WIP process to insure that all sectors are held accountable for securing these results.

Comment ID 0159.001.013

Author Name: Farasy Tom

Organization: Maryland State Builders Association

Home builders are prepared to play a role and we know we have to do more; but everyone must get in the game, otherwise the past 25 years of deferring the accomplishment of Bay Clean Up will continue. We support:

-A robust interstate nutrient trading program and localized sediment trading;

Response

EPA remains interested in working with the jurisdictions and stakeholders in the development of an interstate nutrient credit trading program in the Bay watershed. EPA is collaborating with the World Resources Institute (WRI) in its project to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay Watershed. This project seeks to build a common integrated platform utilizing the existing MD, PA, and VA platforms. This integrated platform will facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools, and may serve as a foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA's NRCS to fund this project.

Comment ID 0194.1.001.004

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

If EPA fundamentally changes Pennsylvania's nutrient credit trading program, you will have set this process back

several years and will not see the type of pollution reductions that are expected. EPA will also alienate large numbers of stakeholders that have been learning how to operate under Pennsylvania's credit trading program as it stand now.

Why hasn't EPA led the charge for an inter-state nutrient credit trading program? These types of programs will be absolutely essential for new growth to continue inside the watershed.

Response

Pennsylvania's new regulations on nutrient trading require that nutrient trading be consistent with the Chesapeake Bay TMDL and the federal Clean Water Act. This is consistent with EPA's Trading Policy. Pennsylvania's plan to comply with the Chesapeake Bay TMDL is contained in its Phase I Watershed Implementation.

EPA remains interested in working with the jurisdictions and stakeholders in the development of an interstate nutrient credit trading program in the Bay watershed. EPA is collaborating with the World Resources Institute (WRI) in its project to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay Watershed. This project seeks to build a common integrated platform utilizing the existing MD, PA, and VA platforms. This integrated platform will facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools, and may serve as a foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA's NRCS to fund this project.

Comment ID 0216.1.001.005

Author Name: Johnson Rick

Organization: Algae Producers of America

In addition to reducing nutrients, the use of an algae-based solution to reducing nutrient loads at point sources (such as wastewater treatment facilities or industrial / Concentrated Agricultural Feed Operations [CAFO] sites) also brings several additional benefits, including:

--The ability to produce valuable co-products based on algae biomass (Note: This is a key area of focus for OTF 10-510). The Pennsylvania WIP includes a Nutrient Credit Trading Program. The first auction held on October 28 and 29 resulted in the exchange of 21,000 credits (Susquehanna nitrogen) at a price of \$3.04/credit. Adoption of a proven algae-based solution not only results in additional potential revenue from the production of valuable co-products, but also allows for additional potential revenue which could be realized through participation in this aspect of the WIP.

--The ability to reduce Greenhouse Gas (GHG) Emissions (controlled algae growth will use approximately 1.5 - 1.8 tonnes of CO₂ for each tonne of algae produced, plus release approximately 1.5 tonnes of oxygen in the process). As you may be aware, the process of nitrification and denitrification common as part of a Biological Nutrition Reduction (BNR), can actually increase GHG emissions through the process of release of N₂O (the Center for Sustainable Systems estimated that in 2006, 0.5% of all GHG emissions were related to wastewater treatment operations).

Response

Thank you for this information. EPA is aware of several pilot projects underway or being considered in the Chesapeake Bay Watershed using algae-based technologies. EPA encourages new technologies such as this one as part of the solution to the water quality impairments of the Chesapeake Bay.

Comment ID 0228.1.001.012

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

The Nutrient Trading Exchange (NTE) outlined in the draft WIP does not currently exist as proposed; considerable time and effort will be needed to establish and expand the program to the point where it operates efficiently as outlined in the Draft WIP. In addition, as currently planned, the NTE does not propose perpetual credits from WWTPs; perpetual credits will be critical in order for the Urban sector to offset its perpetual loads. Without these credits to help offset the E3 levels of stormwater management retrofit to all urban lands in the Draft WIP input deck, the Urban sector is faced with an insurmountable task.

The NTE should also be enhanced with a trading fund, which should be set up before the NTE is finalized in order to generate income for the program as soon as possible. This is described in further detail in Section III.A.5, below.

Response

Thank you for your comments. EPA agrees that it will take time for states to develop and expand nutrient trading programs and EPA intends to work closely with the states and stakeholders in an orderly transition toward expanded programs. Your comments present some interesting ideas such as capitalizing a trading fund and facilitating perpetual or durable credits. EPA will take this concepts into consideration as it works with the states and stakeholders ensure trading programs are expanded in a manners that is orderly, accountable, transparent and effective.

Comment ID 0228.1.001.021

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

5. Establish a "Nutrient Trading Fund"

The Nutrient Trading Exchange (NTE) should be enhanced with a trading fund, which should be set up immediately and can therefore operate before the NTE is finalized in order to generate income for the program as soon as possible. The proposed "Nutrient Trading Fund," which must be approved by the Virginia Board of Soil and Water Conservation, would collect fees both from septic field users without Best Available Technology (BAT) treatment systems and from

Virginia Stormwater Management Program (VSMP) permit holders who elect, pursuant to that regulation, to make a payment to offset the portion of TN and TP loadings not treated on site or through other offset mechanisms. This fee shall be established based upon:

- a) Avoided sewage fees (excluding "tap" fees) for new septic field users who do not provide TN removal treatment systems as described in Action Item #6, below; or
- b) 1.5 times the projected capitalized value [FN48] of the load [FN49] removed by upgrading sewage treatment plants [FN50] from Tier 3 to Tier 4 treatment levels.

The nutrient Trading Fund can be used to:

- a) Fund agricultural BMPs so long as at least 2/3 of the funding covers the costs of BMPs that exceed the draft WIP requirements (and therefore generate credits for the NTE);
- b) Fund WWTP flow reduction/conservation/reuse programs which reduce WWTP loads by reducing the effluent volume of a plant [FN51]; or
- c) Retrofit existing septic systems to meet BAT standards (currently, NSF/ANSI standard 245).

[FN 48] Capital plus operation and maintenance. This value is an estimate of the average WWTP upgrade cost needed to meet the TMDL/WIP.

[FN 49] Needing credits under a VSMP.

[FN 50] In the site's river watershed.

[FN 51] This reduces the loading rate because the draft WIP limits the effluent concentrations of TN and TP.

Response

Thank you for your comments. EPA agrees that it will take time for states to develop and expand nutrient trading programs and EPA intends to work closely with the states and stakeholders in an orderly transition toward expanded programs. Your comments present some interesting ideas such as capitalizing a trading fund and facilitating perpetual or durable credits. EPA will take these concepts into consideration as it works with the states and stakeholders ensure trading programs are expanded in a manner that is orderly, accountable, transparent and effective.

Comment ID 0229-cp.001.003

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

The Chamber & CREDC believe that a robust nutrient trading program is needed

Response

Thank you for your comment. EPA agrees that offsets and nutrient trading are essential tools for meeting the goals of the

Chesapeake Bay TMDL.

Comment ID 0229.1.001.007

Author Name: Black David

Organization: Harrisburg Regional Chamber & Capital Region Economic Development Corporation (CREDC)

A robust nutrient trading and offsetting program is necessary for the following reasons:

- Nutrient trading creates revenue opportunities and reduces cost;
- Nutrient trading accelerates pollution reduction;
- The cost effectiveness of pollution credit trading has been demonstrated; and
- Nutrient trading could benefit farmers, municipalities, utility ratepayers, wastewater treatment plants, entrepreneurs, local government and taxpayers.

Response

Thank you for your comment. EPA agrees that offsets and nutrient credit trading have numerous potential benefits and are important tools for meeting the goals of the Chesapeake Bay TMDL.

Comment ID 0230.1.001.016

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA's Decision to Reject Virginia's Expanded Trading Program Is Unreasonable

Virginia's WIP includes provisions for expansion of its existing nutrient trading program to include agriculture, urban stormwater, and other sectors. Implementation of an expanded trading program would enable affected parties to incorporate cost effectiveness into management decisions, which is essential as EPA has largely ignored cost considerations in developing the TMDL. In fact, EPA has acknowledged in recent public meetings that the TMDL does not consider affordability or cost-effectiveness. Unlike EPA, local governments (POTW owners and operators) have a responsibility to their customers to seek cost-effective solutions. By ignoring cost, EPA's disapproval of Virginia's WIP essentially conflicts with the public interest in efficient and affordable regulations. EPA's acceptance of Virginia's intent to consider trading program expansion would help address this major shortcoming of the TMDL.

Response

Thank you for your comment. EPA does not approve or disapprove the Bay jurisdictions' Watershed Implementation Plans. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers necessary to

stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0230.1.001.024

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

EPA Should Accommodate Virginia's Successful Point Source Trading Program

In Section 10 of the Draft TMDL, EPA addresses the subject of offsets and trading. As with the subject of POTW WLAs discussed elsewhere in these comments, this topic is another area in which the pace of Virginia's real implementation activities under the Chesapeake 2000 Agreement and related State statutes and regulations has far outpaced EPA's TMDL planning activities as of this draft. Given all that Virginia and VAMWA members have invested in the Virginia trading program, it is imperative that EPA be flexible and conform its new policies to the pre-existing laws, regulations and policies of Virginia as well as the associated compliance plan and related contracts of the Virginia Nutrient Credit Exchange Association discussed in the Draft WIP at pages 41-42.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of this Nutrient Credit Exchange and the proposed additional regulatory drivers necessary to stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0230.1.001.025

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

II. EPA'S "BACKSTOPS" JEOPARDIZE VIRGINIA'S HIGHLY-EFFECTIVE POINT SOURCE REGULATIONS, RELATED \$2 BILLION INVESTMENT, AND NATIONALLY-RECOGNIZED NUTRIENT EXCHANGE PROGRAM

On January 30, 2009, EPA sent a letter to the Director of VADEQ regarding Virginia's current regulatory approach with regard to existing nutrient cap loadings.[FN3] EPA's letter included clear support for Virginia's current program, and a confirmation that the cap loads were properly designed to meet Bay water quality requirements:

Virginia developed the Virginia Chesapeake Bay Watershed General NPDES Permit, and an associated trading program to specifically address the point source allocations for each Virginia watershed in the Chesapeake Bay. EPA's

Chesapeake Bay Program verified that those cap loadings were sufficient to achieve Bay water quality. Based on the assignment of wasteload allocations and EPA evaluation of the applicable cap load, EPA found that the General Permit ensured that individual point source discharges would not cause or contribute to an exceedance of the applicable Bay water quality standards.[FN4]

Inexplicably, 21 months later, EPA proposes to radically alter Virginia's regulatory regime and thus negatively impact the associated \$2 billion construction program and an established trading program. EPA's actions in its Draft TMDL are irresponsible and cannot be reconciled with any reasoned approach to TMDL development.

HRSD supports the embodiment of the Virginia approach to POTW wasteload allocations from Virginia law and regulations into its WIP, and urges EPA to accept this element of Virginia's WIP. The wasteload allocations ("WLAs") found in Virginia's Draft WIP are derived primarily from Virginia's Water Quality Management Planning ("WQMP") Regulation (9VAC25-720), Virginia's Chesapeake Bay Watershed General Permit Regulation (9VAC25-820), and "all SWCB-approved amendments" to those regulations. HRSD supports an approach that recognizes the need for this regulatory stability.[FN5]

Virginia's regulatory approach was developed beginning in 2005, with the agreement of a number of local government organizations including VAMWA and of the major citizen environmental groups. In 2005, the Virginia State Water Control Board ("SWCB" or "Board") adopted a package of stringent regulations;[FN6] in 2007, the SWCB adopted a related permitting regulation. These actions (listed below) established a comprehensive program for the (early) regulation of municipal dischargers (collectively, the "Virginia Regulations"):

- Water Quality Management Planning Regulation Amendments, 9VAC25-720
- Nutrient Enriched Waters Policy Amendments, 9VAC25-40-70
- Chesapeake Bay Watershed General Permit Regulation, 9VAC25-820

These regulations were developed pursuant to a statute enacted in 2005 and codified at Virginia Code § 62.1-44.19:12 et seq.

Extensive deliberations and efforts went into the statewide effort to develop Virginia's regulatory wasteload allocations. The SWCB took final action based upon those considerations, and wastewater plants (including POTWs) across the Commonwealth made major investments based upon the Board's decision.

Based on the referenced statute and regulations of the SWCB, the Virginia Nutrient Credit Exchange Association, Inc. (the "Nutrient Exchange") was created, and the Nutrient Exchange and its participants have developed the Exchange Compliance Plan.[FN7] This represents the most extensive, proactive effort to plan and construct municipal wastewater treatment in Virginia since national requirement for secondary treatment established in the 1970s. The Compliance Plan addresses how participating facilities will achieve and maintain compliance with their regulatory nutrient allocations beginning January 1, 2011. VADEQ has approved the Nutrient Exchange's Compliance Plan each year beginning with the first such plan in 2007 through November 2010.[FN8]

The approved Exchange Compliance Plan is based on construction of a large number of advanced nutrient removal facilities throughout the five major river basins as well as a number of nutrient credit trades pursuant to the State Water Control Law's Chesapeake Bay Nutrient Credit Exchange Program article and the Board's Watershed General Permit.

These trades are also contractual obligations of the participants through the complex, multi-party Nutrient Credit Services Agreement, which was executed by the parties in 2007.[FN9]

To help support this construction program and related nutrient credit trading, the General Assembly has appropriated over \$600 million in cost-share funding for treatment upgrades.[FN10] The projects are constructed by the facility owners, and the State cost-share funding is disbursed, in accordance with the terms and conditions of numerous individual Water Quality Improvement Fund Grant Agreements to which VADEQ is a party.[FN11] Virginia's POTWs have also made significant investments in facilities to reduce loadings based upon 2005 nutrient allocations. In sum, Virginia's POTWs have estimated total costs between \$1.5 billion and \$2.0 billion to upgrade POTWs to meet nutrient loading reduction requirements.

As a result of these many efforts by the Commonwealth and local governments, Virginia is in the fortunate position of being able to testify in a recent congressional hearing to Virginia's remarkable progress, including the expectation of meeting its regulatory point source allocations by the December 31, 2010 deadline.[FN12] In his September 2009, testimony before the Subcommittee on Water Resources and the Environment of the House Committee on Transportation and Infrastructure, Virginia's Secretary of Natural Resources highlighted the State's financial participation and commended the Nutrient Exchange for its role in facilitating the nutrient upgrades.[FN13]

As noted above, EPA has previously agreed that regulatory stability should be a fundamental component of the Bay TMDL. Indeed, because of the significant investment made by local governments and the Commonwealth (as well as other Bay states), the EPA Regional Administrator publicly agreed that regulatory stability is a "priority need" and a "matter of fiduciary responsibility and public trust:"

...the large scale public investments (estimated at over \$4 billion) that are now being carried out throughout the watershed to upgrade and reduce nutrient discharges from point sources. A stable regulatory environment is a priority need for these facilities and a matter of fiduciary responsibility and public trust. Therefore, EPA considers requiring further point source upgrades to the limits of technology as an option of last resort and is avoidable if the Bay partners use our creative energies to deliver sufficient nonpoint pollutant reduction commitments.[FN14]

In addition, the Office of Inspector General has also agreed that allocations for significant wastewater treatment facilities should remain unchanged:

Although EPA and its Bay partners could obtain additional nutrient reductions from significant municipal wastewater treatment facilities..., these additional reductions are not cost effective or practical. Obtaining these additional reductions would require justifying additional expenditures, recalculating wasteload allocations, and reopening and modifying permits already being put in place. At this point, EPA has no plans to require additional reductions from wastewater treatment facilities.[FN15]

Indeed, according to the latest Phase 5.3 model runs, wastewater represented 21 and 25 percent of the average annual nitrogen and phosphorus load, respectively, to the Chesapeake Bay under the 2009 progress scenario. Under the critical 3-year condition for the TMDL (1993-1995), wastewater would represent an even lower proportion of the nutrient load with existing controls.

Moreover, wastewater treatment plants lead all sectors in nutrient load reduction. For example, the estimated 2008

wastewater loads represent a 45-percent reduction from 1985 levels and a 62- percent reduction from "no action" levels. Wastewater treatment plants are still in the process of completing major upgrades and are the only sector predicted to achieve tributary strategy loads shortly after 2010. With current levels of nonpoint source controls, the wastewater cap loads will represent only about 15-percent of the average annual nitrogen load to the Bay, and even less under critical hydrologic conditions.

Although the wastewater sector is proud of its progress in nutrient load reduction, most treatment plants are allocated at close to limit-of-technology levels, and there is almost no benefit to further reductions in point source allocations. Non-point source reduction will remain the primary means to achieve the overall loading caps.

In contrast, the Susquehanna River basin alone contributes 44 percent of the total nitrogen load to the Bay. This value actually underestimates the impact of the Susquehanna basin, because it is among the most "effective" basins at impacting hypoxia in the mainstem Bay. When relative effectiveness is considered, the Susquehanna River basin accounts for more than 60 percent of the "algal units" delivered to the Bay. Regardless of implementation actions in other basins, load reductions in the Susquehanna basin are the key to attaining water quality goals.

Despite the extraordinary efforts made by Virginia's POTWs, and EPA's own prior statements, EPA's Draft TMDL threatens to disrupt these very productive recent efforts.

EPA has concluded that Virginia's WIP fails to comply with EPA's July 1, 2010 and August 13, 2010 nutrient and sediment allocations [FN16] and does not adequately establish reasonable assurance. EPA has established what it is calling a "backstop allocation" in response.[FN17] This backstop is meant to "...reduce the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions' draft Phase I WIPs addressing nonpoint source reductions." [FN18]

Each of the Bay States received a "minor," "moderate," or "high" backstop depending upon EPA's view of how severely the state had missed the allocation targets and reasonable assurance mandate. Virginia received a "moderate" backstop to bridge the gap between EPA's expectations and the Virginia Draft WIP.[FN19] The "moderate" backstop sets wastewater discharge allocations based on concentrations of 4 milligrams per liter ("mg/l") for total nitrogen ("TN") and 0.3 mg/l for total phosphorus ("TP") and design flows (i.e., plant capacity).[FN20]

EPA also established what it calls "full" backstops for all Bay States. For wastewater, "full" backstops set allocations for nutrients based upon limits of technology (3 mg/l for TN and 0.1 mg/l for TP) and historical flows (2007 to 2009 averages) rather than design flows.[FN21] According to the Draft TMDL, EPA will use the "full" backstops "...in any of the seven watershed jurisdictions if EPA determines that a jurisdiction's final Phase I WIP is weaker than its draft Phase I WIP and requires additional backstop actions to ensure that point and nonpoint source reductions sufficient to meet WLAs and LAs are achieved and maintained." [FN22] HRSD strongly opposes the use of either "moderate" or "full" backstops in Virginia. As discussed below, EPA's application of its reasonable assurance "regulation" is unlawful, unprecedented and certainly unwarranted under the circumstances. EPA has no justifiable basis (or legal authority) for setting any backstops in Virginia, much less "full" backstops as suggested by the Draft TMDL and Appendix Q-2.

For many of Virginia's POTWs, the concentration levels based upon the "moderate" backstop are significantly lower than the concentration levels used to derive the WLAs in the Virginia Regulations and now in Virginia's Draft WIP. As a result, EPA's "moderate" backstop reduces POTW WLAs in order to satisfy EPA's desire for additional reasonable

assurance.

EPA's Draft TMDL puts Virginia's POTWs at risk that additional dollars will be needed to complete additional upgrades that will comply with EPA's WLAs, or, even worse, that upgrades that have been completed or are well underway will be stranded in place. This is completely unjustifiable based upon EPA's earlier remarks, and is unwarranted based upon the minimal impact wastewater has on Bay water quality as compared to other sectors. In addition, as explained below, EPA's rejection of Virginia's Draft WIP is legally objectionable. The Clean Water Act does not give EPA the authority to review and/or approve WIPs, or to direct their specific terms. EPA's decision to overwrite Virginia's Draft WIP is unlawful per the Clean Water Act.

In addition, EPA's backstops set a universal technology standard on POTWs across Virginia. This is inconsistent with Virginia's more scientifically defensible site-specific approach in the Virginia Regulations. Virginia's allocations recognize that (1) the James and York River basins do not contribute to the mid-Bay impairments and instead are regulated differently for local quality objectives, and (2) a number of Virginia plants have valid site-specific needs for the allocations alternative allocations. As to the second point, for example, UOSA's allocation reflects the unique drinking water considerations of its immediate receiving water, the Occoquan Reservoir. EPA's backstop WLA would endanger the water quality of the Reservoir, and, in turn, drinking water for up to a million Northern Virginia residents. Other POTWs with particular WLAs under Virginia law include the City of Hopewell's POTW (80% industrial flow which is far higher than a typical municipal facility) and Virginia's CSO communities (City of Lynchburg and City of Richmond). EPA's failure to consider these important issues in its Draft TMDL is unreasonable.

Not only are allocations under the Virginia Regulations and Draft WIP more appropriate than those of the Draft TMDL for technical reasons and the above-stated policy reasons, but at some point the relentless regulatory pressure to increase wastewater rates must be considered. According to Draper Aden Associates' most recent annual water and wastewater rate report, Virginia wastewater rates rose an average of 5% last year and 67% over the last decade. Many VAMWA members have reported double-digit rate increases for multiple years. This comes at a time when unemployment levels are very high (currently at 9.6%). Consideration should be given to the impact of the higher costs that EPA is forcing on Virginia's families and businesses.

For these reasons above, HRSD objects to EPA's determination to "backstop" Virginia's Draft WIP for wastewater and supports the Virginia Regulations incorporated into the Draft WIP. EPA's backstops must be eliminated before EPA issues its final TMDL.

[FN3] Attached hereto as Appendix 2.

[FN4] January 30 Letter at p. 2. In this letter, EPA also confirmed that it sent a letter on December 14, 2006 in which it "reported 'no objection' to the General Permit..."

[FN5] VAMWA has consistently advocated regulatory stability throughout this process. For example, VAMWA provided recommendations on regulatory stability to the Chesapeake Bay Wastewater Treatment Working Group on June 9, 2009 (attached hereto as Appendix 3). See also December 11, 2008 Memorandum from VAMWA/MAMWA Chesapeake Bay Team to CBP Water Quality Steering Committee (Representation of VA and MD POTW Loads in Model Scenarios) (attached hereto as Appendix 4).

[FN6] For reference see September 12, 2005 and November 4, 2005 Memoranda from DEQ to SWCB (attached hereto as Appendix 5).

[FN7] Attached hereto as Appendix 6.

[FN8] VADEQ's approval letters are attached hereto as Appendix 7.

[FN9] See Appendix 6.

[FN10] Fifty-five (55) POTWs have signed grant agreements with the Commonwealth for partial grant funding for upgrades. In sum, these grant agreements represent an invest by the Commonwealth of approximately \$648.23 million. Despite the commitment made by Virginia and local governments (for the balance of the approximately \$2 billion effort), Virginia's program is facing significant funding shortfalls. Virginia is projecting a shortfall in funding of approximately \$112 million by July 2011, and has begun pro-rated payments in an effort to shore up the Water Quality Improvement Fund budget.

[FN11] A sample agreement is attached hereto as Appendix 8.

[FN12] In addition to strides made in Virginia, Baywide, the wastewater source sector was well on its way to achieving a significant percentage of their ultimate clean-up goals by 2005. As a presentation from the Chesapeake Bay Program Office ("CBPO") shows (pertinent page attached as Appendix 9), wastewater (both municipal and industrial) had achieved 63% of the nitrogen reduction goal (loadings reduced by 30.4 million pounds per year from 1985-2004) and 80% of the phosphorous reduction goal (loadings reduced by 4.9 million pounds per year from 1985-2004).

[FN13] Former Secretary of Natural Resources Preston L. Bryant's written comments are attached hereto as Appendix 10.

[FN14] Letter dated Sept. 11, 2008, from Donald S. Welsh, EPA Region III, to John Griffin, Maryland DRN, Enclosure A at 4 (attached hereto as Appendix 11).

[FN15] 2008 EPA Office of Inspector General's Report (08-P-0049) (attached hereto as Appendix 12).

[FN16] EPA's letters to Virginia Secretary of Natural Resources Doug Domenech establishing nutrient and sediment allocations are attached hereto as Appendix 13.

[FN17] Draft TMDL at 8-9.

[FN18] Draft TMDL at 8-9.

[FN19] Draft TMDL at 8-19.

[FN20] Draft TMDL at 8-11.

[FN21] Allocations for sediment also appear to be very stringent under the "full" backstop. For description of the "full"

backstop see Draft TMDL at 8-11; for allocations see Appendix Q-2 (Full Backstop; Annual Loads).

[FN22] Draft TMDL at 8-17.

Response

Thank you for your comments. EPA considered these as it finalized the TMDL. In addition, EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers necessary to stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0230.1.001.029

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

V. EPA'S DECISION TO REJECT VIRGINIA'S EXPANDED TRADING PROGRAM APPROACH IS UNREASONABLE

Virginia's WIP includes provisions for expansion of its existing nutrient trading program. Virginia proposes to expand the trading program to include agriculture, urban storm, and others. An implementation of such an expanded trading program would provide the necessary flexibility to achieve cost effectiveness. EPA has acknowledged in recent public meetings that the TMDL does not consider affordability or cost-effectiveness. Unlike the EPA, local governments have a fiduciary responsibility to their customers to seek cost-effective solutions. EPA's disapproval of Virginia's WIP essentially eliminates the flexibility needed to serve the best interests of the public. EPA's action in this regard is unreasonable.

Response

Thank you for your comment. EPA does not approve or disapprove the Bay jurisdictions' Watershed Implementation Plans. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers necessary to stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0230.1.001.050

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

XIII. EPA SHOULD ACCOMMODATE VIRGINIA'S SUCCESSFUL POINT SOURCE TRADING PROGRAM

In Section 10 of the Draft TMDL, EPA addresses the subject of offsets and trading. As with the subject of POTW WLAs discussed elsewhere in these comments, this topic is another area in which the pace of Virginia's real implementation activities under the Chesapeake 2000 Agreement and related State statutes and regulations has far outpaced EPA's TMDL planning activities as of this draft.

This basic timing issue leads to our main point. Given all that Virginia including VAMWA members have invested in the Virginia trading program, it is imperative that EPA be flexible or and conform its new policies to the pre-existing laws, regulations and policies of Virginia as well as the associated compliance plan and related contracts of the Virginia Nutrient Credit Exchange Association discussed in the Draft WIP at pages 41-42.

At page 10-4 of the Draft TMDL, EPA requested comment on whether its proposed offset provisions for new or increased nutrient or sediment loadings should apply to water quality trades in the Bay jurisdictions generally. HRSD's would strongly recommend that the answer be "no." It is not so much the case that HRSD would expect to find any major inconsistencies of environmental importance between (1) EPA's guidance and (2) and Virginia's laws, regulations and policies and the Nutrient Exchange's compliance plan, policies and contracts developed consistent with Virginia law. However, a thorough analysis of that question is in itself a major undertaking that simply cannot be performed with a 45-day comment period.

EPA's Draft TMDL calls for consistency with:

--Six (6) "source documents"

--A set of definitions

--A list of 10 "comment elements" with 38 sub-elements

Virginia's existing program includes:

--A complex statute (Va. Code 62.1-44.19:12 et set.)

--The Virginia Regulations (discussed elsewhere in these comments)

--The Chesapeake Bay Watershed General Permit (9VAC25-820) (see Draft WIP at page 41)

--The DEQ-approved Exchange Compliance Plan (2007, 2008, 2009 and 2010 Annual Updates)

--The Nutrient Exchange's 72-party Nutrient Credit Services Agreement

Consider:

--The Watershed General Permit itself contains 30 definitions and 17 pages requirements

--The Nutrient Exchange's 72-party Nutrient Credit Services Agreement is 30-page document with 39 definitions

--The Exchange Compliance Plan consists of hundreds of pages of associated facility plans and trades

This Virginia point-point trading program is working remarkably well and has been widely praised as a national model, including receiving credit in some of EPA's own publications. Therefore, at this time, HRSD's urges EPA to limit its consideration of new credit-related policies to the specific issue of offsetting new or increased loads.

As to the specific proposals advanced by EPA, HRSD offers the following comments:

NPDES Permit Noncompliance (Page S-4, Item 6 (b)) - This item is irrelevant to trading and certainly stands to disrupt trading in practice. For trading to be reliable and useful for the users as well as the regulators, it makes no sense that otherwise valid nutrient credits would be disqualified upon noncompliance of the credit generating facility. Consider just a few examples of potential noncompliance: failure to submit a complete renewal application or a required facility-related manual on time, laboratory testing errors, inadvertent exceedence of unrelated nutrient limits, etc. This provision will only inject unnecessary uncertainty into the trading or offsetting process, does not "safeguard" nutrient trades, and actually would work against EPA's stated objectives. This element should be eliminated.

"Disproportionate Harm" (Page S-4, Item 6 (c))- This provision is redundant of the many provisions in Appendix S that state that trading or offsetting must be consistent with water quality standards, which apply to human health and aquatic life. This provision is redundant of the standards that preclude harm by their own terms and, therefore, the provision should be deleted.

"Temporal Consistency" (Page S-4, Item 6 (d))- This provision should be clarified to provide that temporal consistency is satisfied for point sources when the credit is generated and used within the same 12 month period. This request is consistent with the annual basis for the TMDL and WLAs.

"Accountability" Provisions (Page S-5, Item 8) - Much of this section is redundant of the previous seven items in Appendix S. However, a number of the items are worded slightly differently than those prior items. This may lead to confusion and further complicate implementation. We suggest deleting all sub-elements that are addressed elsewhere in the document.

"Net Improvement Offsets" (Page 10-2) - This item is objectionable in that it requires a source to do more than fully offset its own load. This essentially would penalize one party that is achieving zero-discharge for its new or increased activity, by requiring that party to also cleanup for another source that should do so but has not. This violates the most basic notions of fairness and due process, reflects poorly on government, and should be deleted.

Response

Thank you for your comments. The load allocations and wasteload allocations in the TMDL are, with some exceptions, consistent with the load allocations and wasteload allocations proposed by the jurisdictions in their final Phase I Watershed Implementation Plans. In some cases, the load and wasteload allocations in the TMDL differ from what was contained in the draft TMDL for public comment, the jurisdictions' draft Phase I Watershed Implementation Plans, and/or the jurisdictions' tributary strategies. The

degree to which such allocations differ from these earlier documents varies by jurisdiction and sector. EPA recognizes the success of Virginia's Point Source Trading Program. EPA also supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

With respect to how jurisdictions' offset and trading programs will be evaluated by EPA, EPA expects to consider a jurisdiction's program in total, including those aspects of it that may be well established and aspects that are new or developing. In doing such reviews, EPA expects to exercise discretion to use the common elements and definitions contained in the TMDL Appendix, along with the existing applicable policy and guidance cited therein to assist in such evaluation. Many of the common elements in the TMDL Appendix articulate features of offset and trading programs EPA expects the jurisdictions to consider and address as they develop, refine, and implement their programs, rather than specific mechanisms, methods or requirements to which jurisdictions' programs must rigidly conform.

EPA believes that existing nutrient offset and trading programs should address the elements describe in Appendix S of the draft TMDL and EPA is working with the Bay jurisdictions to ensure that they do address such elements.

EPA disagrees that the concept of "net improvement offsets" is inherently unfair. Net improvements are fundamentally different than all other trade ratios. All other ratios, including PA's insurance, are geared to ensuring that the TMDL/WQS are actually met. They account for variations and uncertainties. Net improvements by their very nature are not meant to "account" for anything, but rather to go further and speed up implementation. This approach does not subsidize noncompliance by sources, as compliance assurance and enforcement programs will address such challenges. Moreover, the language on page 10-2 of the TMDL does not specify that jurisdictions should require net improvements. The language acknowledges that jurisdictions may choose to establish the authority for net improvement offsets as appropriate. EPA also notes that under the basic structure of the Clean Water Act, point sources are not guaranteed the right to discharge pollutants to waters of the United States. On the contrary, point source discharges of pollutants to waters of the United States, are subject to the effluent limitations and conditions established by EPA or the State, necessary to implement CWA technology based controls and achieve state water quality standards. EPA believes that in some cases, particularly where a waterbody is not attaining water quality standards it may be necessary for a discharger to achieve a net improvement in a waterbody in order to create the conditions necessary for the waterbody to be able to assimilate the discharger's pollutant load with a high enough level of confidence that the discharge will not result in an excursion of applicable standards. In any case, the net improvement offset is presented as a program feature that jurisdictions may wish to explore.

EPA does support Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0235.1.001.013

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

The nutrient trading option is not a magic bullet that will address this concern. While we welcome the opportunity to participate in nutrient trading, the amount of credits that Poquoson would have to purchase to meet program goals would likely not be available and would be cost prohibitive, even under the most aggressive financing scenarios.

Response

Thank you for your comment. EPA agrees that there is not a single solution that will restore the Chesapeake Bay. Trading will be among the several choices for this restoration and EPA believes nutrient credit trading will be an important ingredient in a successful Bay restoration.

Comment ID 0260.1.001.007

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

Nutrient Credit trading will be impacted by the delivery ratio issue raised above. Current and future trades may be suspect if delivery ratios change during the trading process. The EPA Bay TMDL and accompanying documents must lay out a clear program for interstate and intrastate trading programs so that uniform protocol can be applied. Also, EPA needs to ensure that oversight is in place so that it is guaranteed that agricultural credits surpass baseline and threshold (or whatever EPA recognizes as a compliance trigger) on a continuing basis in order to trade.

EPA should also consider how to make trading more beneficial between credit producers and credit buyers. This would include more EPA-state involvement in accepted BMP reductions, the approval of unique and innovative trading opportunities (such as oyster bed creation, planting of submerged grass beds, etc.), and extension of the life of a credit beyond the currently limited one-year lifespan.

Response

Thank you for your comment. EPA understands your concern regarding changing delivery ratios and is currently considering how to best address this issue in the near future. EPA also understands your concern about ensuring that trades have adequate oversight. EPA intends for “independent oversight” in section 10.1.1 of the draft TMDL to mean third-party oversight of jurisdictional offset programs, including by firms under contract to the jurisdictions. In such cases, contracts ideally would specify the authority of the third party to arrive at conclusions without being influenced by the jurisdiction.

EPA intends for “public oversight” in section 10.1.2 of the draft TMDL to mean that jurisdictions should provide information about their offset programs with detail and explanation sufficient for members of the public understand the programs, including how individual offset agreements are structured. Jurisdictions should also provide the public with opportunities to comment on offset programs and individual agreements under such programs.

EPA remains interested in working with the jurisdictions and stakeholders in the development of an interstate nutrient credit trading program in the Bay watershed. EPA is collaborating with the World Resources Institute (WRI) in its project to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay Watershed. This project seeks to build a common integrated platform utilizing the existing MD, PA, and VA platforms. This integrated platform will facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools, and may serve as a foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA's NRCS to fund this project.

Comment ID 0270-cp.001.003

Author Name: Wardrop Denice

Organization: Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC)

c. NPDES permitting for Point Sources and Incentives. Under current NPDES requirements (as interpreted by Maryland and Virginia) point-to-non-point trading or offsets are unlikely to occur. Under current rules, point sources find that the risk of permit violations overwhelms trading benefits. EPA needs to more carefully consider the incentives for municipal wastewater plants to participate in a point-to-non-point trading or offsets program, and incorporate language in the document to increase incentives for these entities.

d. Additional Legal Issues and Uncertainties. The "net improvement offsets" provision found in §10.1.3 (Additional Offset Program Features) appears to state that jurisdictions would be required to levy a tax or fee on point sources to ensure net improvements. The TMDL rules need to clarify that a regulatory agency may be on questionable grounds if it attempts to levy a tax on point sources to pay for non-point source improvements. When EPA begins to discuss net improvement offsets in this way, it is moving from the realm of a trading program to a tax program. This may raise a legal issue if the jurisdiction is an administrative agency because administrative agencies do not have taxing authority. The document could be improved by making it clear that the authority to do net improvement offsets must come from a legislative body, not a regulatory agency.

Response

Thank you for your comments. Jurisdictions continually look for incentives to encourage participation in programs such as point to nonpoint nutrient credit trading. EPA is aware of approaches currently taken in the Bay watershed to minimize the type of risk to point sources described in your comment. For example, Pennsylvania employs an approach to insure point sources against default of credits they purchase. EPA will continue working with the Bay jurisdictions as they continue to develop their programs.

Regarding the "net improvement offsets" provision. Net improvements are fundamentally different than all other trade ratios. All other ratios, including PA's insurance, are geared to ensuring that the TMDL/WQS are actually met. They account for variations and uncertainties. Net improvements by their very nature are not meant to "account" for anything, but rather to go further and speed up implementation. This approach does not subsidize noncompliance by sources, as compliance assurance and enforcement programs will address such challenges. Moreover, the language on page 10-2 of the TMDL does not specify that jurisdictions

should require net improvements. The language acknowledges that jurisdictions may choose to establish the authority for net improvement offsets as appropriate. EPA also notes that under the basic structure of the Clean Water Act, point sources are not guaranteed the right to discharge pollutants to waters of the United States. On the contrary, point source discharges of pollutants to waters of the United States, are subject to the effluent limitations and conditions established by EPA or the State, necessary to implement CWA technology based controls and achieve state water quality standards. EPA believes that in some cases, particularly where a waterbody is not attaining water quality standards it may be necessary for a discharger to achieve a net improvement in a waterbody in order to create the conditions necessary for the waterbody to be able to assimilate the discharger's pollutant load with a high enough level of confidence that the discharge will not result in an excursion of applicable standards. In any case, the net improvement offset is presented as a program feature that jurisdictions may wish to explore.

Comment ID 0270-cp.001.007

Author Name: Wardrop Denice

Organization: Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC)

h. III. 7. Certification and Enforceability. (a) Requiring that any offsets, along with the enforceable water quality-based effluent limits (WQBELs) based on the applicable WLA (e.g., zero for new dischargers), will be included and recorded in the NPDES permit

Comment: For trading programs to be attractive and feasible for permitted point sources, there must be flexibility by EPA in oversight of state programs. The statement in (f) "Ensuring that an NPDES permittee remains accountable for meeting the WQBEL(s) in its permit" appears to be inconsistent with the goal of enabling successful long-term offsets.

i. III. Common Elements 7. Certification and Enforceability. (d) Ensuring that transactions can be enforced by the jurisdiction or otherwise insured by the jurisdiction, for example through a credit reserve insurance account, in the event of failure by the offset generator.

Comment: Within the purview of EPA administrative actions, who is responsible for the risk of failure/noncompliance?

Response

Thank you for your comments. EPA's current national policy is that the NPDES permittee engaged in a water quality trade remains responsible for complying with the terms of their permit as required under the Clean Water Act. This arrangement creates the incentive for the permittee to ensure that the terms of the trade are such that it can enforce the terms of the trade. In addition, EPA is aware of approaches currently taken in the Bay watershed to minimize the type of risk to point sources described in your comment. For example, Pennsylvania employs an approach to insure point sources against default of credits they have purchase. EPA believes that the policy of requiring the permittee to retain liability for compliance with the pre-trade effluent limit, therefore does not conflict with the goal of enabling successful long-term offsets so long as the jurisdiction's program contains a feature to insure against credit default, the permittee has a contract with the credit generator, or the jurisdiction or the trading interests have established some other mechanism to mitigate the risk to the permittee of such default.

Comment ID 0277.1.001.005

Author Name: Shambaugh Brenda

Organization: PA Association of Conservation Districts (PACD)

Nutrient trading should be an available tool for point and non-point pollution sources as they strive to reduce nutrients going into the Chesapeake Bay. Not only has PA produced at least 8 successful trades over the past 3 years, as recently as October 2010 PENNVEST conducted its first successful auction of credits. At that time, credits representing the annual removal of 21,000 pounds of nitrogen from the Susquehanna River watershed and the Chesapeake Bay over each of the next three years were sold. The PA Nutrient Trading program must be allowed to continue in its present form, without mandated changes from EPA.

Response

Thank you for your comments. EPA agrees that the agriculture sector must participate in the protection and restoration of the Chesapeake Bay watershed. EPA will continue to work with Maryland to insure that its nutrient credit program will support the goals of the Bay TMDL.

Comment ID 0280.1.001.003

Author Name: Newcomb Jim

Organization: Dorchester Soil Conservation District

The Dorchester Soil Conservation District has reviewed Maryland's Watershed Implementation Plan (WIP) and would like to make the following comments.

- Agriculture needs to be responsible for their portion of the clean up, but trading will ultimately weaken the Ag base and should not be used to balance the shortcomings of the other segments involved in the plan.

Response

Thank you for your comments. EPA agrees that the agriculture sector must participate in the protection and restoration of the Chesapeake Bay watershed.. EPA will continue to work with Maryland to insure that its nutrient credit program will support the goals of the Bay TMDL.

Comment ID 0282-cp.001.005

Author Name: Tabb Lyle

Organization: Lyle C. Tabb & Sons, Inc.

On the issue of selling credits from nonpolluters to polluters, I think this would only make it profitable to be out of compliance and I strongly disagree with this concept.

Response

Thank you for your comment. Under the Chesapeake Bay TMDL, dischargers are able to choose from a range of approaches to reduce their loadings. Market approaches such as offsets and nutrient credit trading are approaches to reducing overall pollutant loads and EPA disagrees that such approaches, where they are orderly, accountable, transparent and effective would reward noncompliance with applicable laws and regulations.

Comment ID 0288.1.001.014

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

EPA'S DECISION TO REJECT VIRGINIA'S EXPANDED TRADING PROGRAM APPROACH IS UNREASONABLE

Virginia's WIP includes provisions for expansion of its existing nutrient trading program. Virginia proposes to expand the trading program to include agriculture, urban storm, and others. An implementation of such an expanded trading program would provide the necessary flexibility to achieve cost effectiveness. EPA has acknowledged in recent public meetings that the TMDL does not consider affordability or cost-effectiveness. Unlike the EPA, local governments have a fiduciary responsibility to their customers to seek cost-effective solutions. EPA's disapproval of Virginia's WIP essentially eliminates the flexibility needed to serve the best interests of the public. EPA's action in this regard is unreasonable.

Response

Thank you for your comment. EPA does not approve or disapprove the Bay jurisdictions' Watershed Implementation Plans. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0288.1.001.031

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

EPA SHOULD ACCOMMODATE VIRGINIA'S SUCCESSFUL POINT SOURCE TRADING PROGRAM

In Section 10 of the Draft TMDL, EPA addresses the subject of offsets and trading. As with the subject of POTW WLAs discussed elsewhere in these comments, this topic is another area in which the pace of Virginia's real implementation activities under the Chesapeake 2000 Agreement and related State statutes and regulations has far outpaced EPA's TMDL planning activities as of this draft.

This basic timing issue leads to our main point. Given all that Virginia including VAMWA members have invested in the Virginia trading program, it is imperative that EPA be flexible or and conform its new policies to the pre-existing laws, regulations and policies of Virginia as well as the associated compliance plan and related contracts of the Virginia Nutrient

Credit Exchange Association discussed in the Draft WIP at pages 41-42.

At page 10-4 of the Draft TMDL, EPA requested comment on whether its proposed offset provisions for new or increased nutrient or sediment loadings should apply to water quality trades in the Bay jurisdictions generally. VAMWA's would strongly recommend that the answer be "no." It is not so much the case that VAMWA would expect to find any major inconsistencies of environmental importance between (1) EPA's guidance and (2) and Virginia's laws, regulations and policies and the Nutrient Exchange's compliance plan, policies and contracts developed consistent with Virginia law. However, a thorough analysis of that question is in itself a major undertaking that simply cannot be performed with a 45-day comment period.

EPA's Draft TMDL calls for consistency with:

- Six (6) "source documents"
- A set of definitions
- A list of 10 "comment elements" with 38 sub-elements

Virginia's existing program includes:

- A complex statute (Va. Code 62.1-44.19:12 et set.)
- The Virginia Regulations (discussed elsewhere in these comments)
- The Chesapeake Bay Watershed General Permit (9VAC25-820) (see Draft WIP at page 41)
- The DEQ-approved Exchange Compliance Plan (2007, 2008, 2009 and 2010 Annual Updates)
- The Nutrient Exchange's 72-party Nutrient Credit Services Agreement

Consider:

- The Watershed General Permit itself contains 30 definitions and 17 pages requirements
- The Nutrient Exchange's 72-party Nutrient Credit Services Agreement is 30-page document with 39 definitions
- The Exchange Compliance Plan consists of hundreds of pages of associated facility plans and trades

This Virginia point-point trading program is working remarkably well and has been widely praised as a national model, including receiving credit in some of EPA's own publications. Therefore, at this time, VAMWA's urges EPA to limit its

consideration of new credit-related policies to the specific issue of offsetting new or increased loads.

As to the specific proposals advanced by EPA, VAMWA offers the following comments:

NPDES Permit Noncompliance (Page S-4, Item 6 (b)) - This item is irrelevant to trading and certainly stands to disrupt trading in practice. For trading to be reliable and useful for the users as well as the regulators, it makes no sense that otherwise valid nutrient credits would be disqualified upon noncompliance of the credit generating facility. Consider just a few examples of potential noncompliance: failure to submit a complete renewal application or a required facility-related manual on time, laboratory testing errors, inadvertent exceedence of unrelated nutrient limits, etc. This provision will only inject unnecessary uncertainty into the trading or offsetting process, does not "safeguard" nutrient trades, and actually would work against EPA's stated objectives. This element should be eliminated.

"Disproportionate Harm" (Page S-4, Item 6 (c))- This provision is redundant of the many provisions in Appendix S that state that trading or offsetting must be consistent with water quality standards, which apply to human health and aquatic life. This provision is redundant of the standards that preclude harm by their own terms and, therefore, the provision should be deleted.

"Temporal Consistency" (Page S-4, Item 6 (d))- This provision should be clarified to provide that temporal consistency is satisfied for point sources when the credit is generated and used within the same 12 month period. This request is consistent with the annual basis for the TMDL and WLAs.

"Accountability" Provisions (Page S-5, Item 8) - Much of this section is redundant of the previous seven items in Appendix S. However, a number of the items are worded slightly differently than those prior items. This may lead to confusion and further complicate implementation. We suggest deleting all sub-elements that are addressed elsewhere in the document.

"Net Improvement Offsets" (Page 10-2) - This item is objectionable in that it requires a source to do more than fully offset its own load. This essentially would penalize one party that is achieving zero-discharge for its new or increased activity, by requiring that party to also cleanup for another source that should do so but has not. This violates the most basic notions of fairness and due process, reflects poorly on government, and should be deleted.

Response

Thank you for your comment. EPA recognizes the success of Virginia's Point Source Trading Program. EPA also supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented. With respect to how jurisdictions' offset and trading programs will be evaluated by EPA, EPA expects to consider a jurisdiction's program in total, including those aspects of it that may be well established and aspects that are new or developing. In doing such reviews, EPA expects to exercise discretion to use the common elements and definitions contained in the TMDL Appendix, along with the existing applicable policy and guidance cited therein to assist in such evaluation. Many of the common elements in the TMDL Appendix articulate features of offset and trading programs EPA expects the jurisdictions to consider and address as they develop, refine, and implement their programs, rather than specific mechanisms, methods or requirements that to

which jurisdictions' programs must rigidly conform.

Comment ID 0293.1.001.012

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

Third, and lastly, EPA has inappropriately rejected an important element of Virginia's approach to reasonable assurance-i.e., expansion of the existing nutrient trading system to include additional source sectors. As a general matter, EPA should have provided due deference to Virginia's Draft WIP.

And, with regard to this issue, EPA should have allowed Virginia to move forward with its plan to develop an expanded trading program. Virginia has a stellar track-record with regard to market-based trading, having established a very successful PS trading program. Virginia has earned the right to show how it could expand that program in a way that would provide reasonable assurance of needed reductions.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange, including the incorporation of additional source sectors in the program. EPA also supports the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0293.1.001.015

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA'S DECISION TO REJECT VIRGINIA'S EXPANDED TRADING OPTION IS UNREASONABLE

Virginia's WIP includes provisions for expansion of its existing nutrient trading program to include agriculture, urban stormwater, and other sectors. Implementation of an expanded trading program would enable affected parties to incorporate cost effectiveness into management decisions, which is essentially as EPA has largely ignored cost considerations in developing the TMDL. In fact, EPA has acknowledged in recent public meetings that the TMDL does not consider affordability or cost-effectiveness. Local governments (including MS4 owners) have a responsibility to their citizens to seek cost-effective solutions. By ignoring cost, EPA's disapproval of Virginia's WIP essentially conflicts with the public interest in efficient and affordable regulations. EPA's acceptance of Virginia's intent to consider trading program expansion would help address this major shortcoming of the TMDL. As discussed above, Virginia has an excellent track record with regard to its existing trading program. There is no reasonable basis for EPA's rejection of

Virginia's approach to expanded trading.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0304.1.001.011

Author Name: Thompson Glenn

Organization: U.S. House of Representatives

The trading of these "Nutrient Credits" is going to be a nightmare. They will go to the highest bidder and that may or may not be us. The E.P.A. and D.E.P. have targeted our municipal authorities because they hold N.P.D.S. permits, this is wrong. They have gotten out of hand and out of touch with rural America. The motto seems to be damn the cost full speed ahead.

Response

Thank you for this comment. EPA identified NPDES permit holders, primarily wastewater treatment plants, as a highly significant category of sources of nutrient loadings adversely impacting the Chesapeake Bay. Some Bay jurisdictions have established nutrient credit trading programs to provide discharges with a cost-effective approach to reducing loadings. Trading programs have been and are being planned to be extended in Bay jurisdictions to provide the same benefits to nonpoint sources. To date, the price of credits has remained approximately the same for some time. EPA encourages all stakeholders to work their jurisdictions' trading representatives to ensure that regulations and policies are fair and equitable.

Comment ID 0330.1.001.011

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

The EPA's wholesale rejection of Virginia's proposal to expand its existing nutrient trading program reflects a lack of understanding of each local government's direct accountability to its citizens for efficient and economical services.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers necessary to stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented. EPA is fully aware of the important role that local government provides its citizens in assuring that its citizens are provided efficient and economical services to the best of its ability.

EPA is aware that meeting TMDL allocations will involve local governments, which already manage a significant workload. EPA is working to identify means of providing technical support to local governments to reduce the burden of planning for the TMDL and implementing measures associated with the TMDL.

Comment ID 0356.1.001.001

Author Name: Miller Leah

Organization: Izaak Walton League of America

Thank you for the opportunity to provide comments on the Draft Chesapeake Bay Total Maximum Daily Load (TMDL). The Izaak Walton League strongly supports the U.S. Environmental Protection Agency (EPA) in taking a lead role in restoring the Chesapeake Bay through the TMDL process. In addition to the comments below, the League fully supports the detailed comments submitted by the Choose Clean Water Coalition.

Investments of time and money by government agencies, conservation organizations and other private entities over the past twenty-five years have moderately improved water quality in the Chesapeake Bay, but have fallen far short of meeting pollution reduction goals. As of 2009, these voluntary efforts to restore the Bay only met 24 percent of the water quality goals set in the Chesapeake 2000 agreement. At the current pace of voluntary programs, the nutrient reductions needed to restore the Bay would not be met until 2050.

Clearly, it is time to move beyond a purely voluntary approach to a more comprehensive effort that includes enforceable, Bay-wide pollution reduction standards. The Clean Water Act, three major Bay Agreements, three consent decrees, dozens of Memoranda of Agreement/Understanding, and a Presidential Executive Order all require development of a Bay-wide TMDL. Moreover, EPA has used its clear legal authority wisely. The public process of developing the TMDL has been highly transparent and provides states ample opportunity to prepare and revise draft Watershed Implementation Plans. In addition, the agency is seeking to implement pollution load allocations that are substantially equivalent to those the states have had since 2003.

Although the League supports implementation of the TMDL, we urge EPA not to use water quality trading to meet pollution reduction targets unless the following conditions are met:

- Water quality will not be degraded within any watershed.
- Water quality monitoring (not simply modeling) is used to verify load reductions from all point and nonpoint sources of pollution used as credits, including those that involve agriculture and forestry operations.
- Compliance and enforcement provisions are stringent and include record keeping, monitoring, reporting, inspections, and public input.

Again, we appreciate the opportunity to comment on the Draft Chesapeake Bay TMDL. We commend EPA for taking a leadership role in Chesapeake Bay restoration and encourage the agency to incorporate our suggestions into the final TMDL. We are optimistic that implementation of the TMDL will achieve pollution reduction targets for the Chesapeake Bay.

Response

Thank you for your comment. EPA agrees that oversight, accountability, and tracking are essential components of a legitimate and effective nutrient credit trading program. EPA will continue to work with the Bay jurisdictions to ensure that these elements are included in all such programs in the watershed.

Comment ID 0366-cp.001.006

Author Name: Melchione Pete

Organization: Southland Corporation

Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land disturbing projects.

Response

Thank you for your comment. Several Bay jurisdictions are considering mechanisms, including mitigation funds, for providing resources for BMP implementation. EPA encourages jurisdictions to use all available tools to expedite restoration of the Chesapeake Bay.

Comment ID 0370-cp.001.007

Author Name: Page T.

Organization:

--While we support the study and establishment of an expanded nutrient trading exchange, allocations in the revised WIP should not be based on its availability. Such changes could be incorporated into the 2011 or 2012 revised Virginia WIP if the study requested by DEQ finds a workable and cost-effective exchange and/or fund can be established. The trading program proposed in the draft WIP is not workable and as a result would require levels of costly urban/suburban retrofits for existing development that far exceed even the draconian EPA urban/suburban retrofit backstop. VACRE supports establishment of a fund through which less expensive agricultural or wastewater BMPs could be installed through payments received from urban/suburban land disturbing projects while achieving greater and more easily verified pollutant reductions than can be achieved through the more expensive urban retrofits.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and its proposed regulatory drivers necessary to stimulate demand in nutrient credit markets. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented. EPA encourages VACRE to continue discussions with Virginia with regard to establishment of a mechanism through which less expensive agricultural or wastewater BMPs could be installed.

Comment ID 0374-cp.001.003

Author Name: Hartgrove Charles

Organization: Town of Ashland, Virginia

We support VA's inclusion of an expanded trading program as a local implementation option. VA's point-point trading program currently includes domestic and industrial wastewater treatment plants. We believe that expansion of VA's trading program is one way to provide flexibility to help make attainment more feasible.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA also agrees that an expanded Nutrient Credit Exchange could provide flexibility to help meet the TMDL allocations in more efficient and cost-effective ways. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0374.1.001.004

Author Name: Hartgrove Charles

Organization: Town of Ashland, Virginia

We appreciate and support Virginia's inclusion of an expanded trading program as a local implementation option. Virginia has a nationally recognized point-point trading program that currently includes domestic and industrial wastewater treatment plants. We believe that expansion of Virginia's trading program is one way to provide flexibility to help make attainment more feasible.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA also agrees that an expanded

Nutrient Credit Exchange could provide flexibility to help meet the TMDL allocations in more efficient and cost-effective ways. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0376.1.001.021

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

EPA's TSS Proposal Undermines the Nutrient Credit Exchange Program.

The Exchange was developed in reliance on the long-standing expectation that investments in technology to achieve nutrient and phosphorus reductions would in turn drive point source loadings of sediment. The drastic TSS limitations resulting from EPA's partial and full backstop proposals undermines this process, because different technologies will be necessary to achieve the TSS limitations. EPA's proposal, in effect, makes TSS the driver for technology investments rather than nitrogen and phosphorus. This is a marked shift in the program that undermines the investments and trading programs established under Virginia's regulatory trading program.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, including sediment, contingency plans (backstops) are in place and able to be implemented. EPA believes that the Chesapeake Bay TMDL and the load and wasteload allocations in it for nitrogen, phosphorus and sediment will have the effect of improving treatment levels and management practices, and prompting the technology investments to support such measures necessary for increasingly effective reductions of all three types of pollutant loads, nitrogen, phosphorus and sediment.

Comment ID 0378.1.001.007

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

The EPA Backstop TMDL suggests that perhaps the difference between the Table Q2 values and what is technically or economically achievable could be made up by purchasing credits. Such statements are mere fiction. As EPA well knows, there are nowhere near the number of credits available or predicted to be available to cover the differences between the Pennsylvania WIP loadings for point sources and the Backstop TMDL values. Moreover, EPA's other comments on the Pennsylvania WIP draw into serious question whether Pennsylvania's credit trading program will remain viable.

Response

Thank you for your comment. EPA believes that Pennsylvania's nutrient credit trading program will continue to play an important role in the restoration of the Chesapeake Bay. Pennsylvania's program requires that the program be evaluated periodically and make adjustments, if appropriate, in order to insure that it does not violate the federal Clean Water Act. EPA has worked closely with Pennsylvania to ensure that if the nutrient credit trading program and other programs are unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and are able to be implemented.

Comment ID 0389.1.001.017

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

Interstate Trading is Biased Against NY Farmers & is Otherwise Ineffective

There are 2 kinds of trading programs being considered: (i) one for new and increased loadings only; and (ii) one that considers trades between sources contributing pollutant loadings to the same or different Bay segments - with important conditions. See Draft TMDL at 10-1 to 3. Neither program offers any help to New York and, if not properly formulated, will be grossly unfair to New York.

The first program will very likely not help NY because it is, unfortunately, very doubtful that sources within the Southern Tier will expand or that new sources will be added in the near future -- given the current population decline and basic demographics of the region. That is not the case with respect to Maryland and Virginia, which are both booming. Take Virginia, for example, its population has increased by over 40% since 1985.[FN14] [Comment Letter contains additional information in the form of an attachment. See original comment letter 0389.1] Not surprisingly, its wastewater load has increased by a similar amount. [FN15] While Virginia's actual wastewater flow has been around 600 mgd over the last few years, however, its current design capacity is around 1,000 mgd, a difference of 400 mgd. Assuming the offset approach -- like the TMDL -- will be based on design flow, Virginia will have a significant amount of nitrogen load to use on new and expanded sources in-state. The same goes for other states that are growing. The Draft TMDL (at 6-44) acknowledges this point, as well as the fact that growing states are given a competitive advantage. Since reduction of "design" load is not the same as an actual reduction, this program may also result in paper reductions that have little to no environmental benefit.

The "Water Quality Trading" program discussed in the Draft TMDL (at 10-3) will be available to "sources contributing pollutant loadings to the same or different Bay segments, provided such trades do not cause or contribute to an exceedance of WQS in either receiving segment or anywhere else in the Bay watershed." Without knowing specifically how EPA will enforce the condition that such trades "not cause or contribute to exceedances of WQS," it is difficult to know precisely how this program will function. Nevertheless, it is easy to see how this kind of program can be abused in a manner that prejudices New York-based sources, particularly farmers. Again, assuming that the Water Quality Trading Program is based on design, rather than, actual flow, large over-capacity sources in Virginia and Maryland will have a significant amount of "paper" loads to offer other sources that will find it more difficult to reduce pollutant inputs. For example, as discussed below, New York-based farmers will find it very difficult, if not impossible, to employ the kinds of

practices that EPA's backstop approach will require. [FN16] This kind of a trading program may place NY farmers in the untenable position of purchasing offsets from wealthy sewer districts in Maryland and Virginia, which would result in only a paper reduction and have no discernible benefit to the Bay. Forcing New York farmers to purchase offsets will only result in driving many of them out of business.

[FN14] See Data Tables attached as Exhibit 1.

[FN15] Id.

[FN16] While New York's design wastewater load is also greater than its actual load, the extra capacity is necessary to address significant stormwater and snowmelt flows from combined sewers located in New York's part of the watershed. In other words, the extra capacity is not available for trading.

Response

Thank you for your comment. EPA's proposed reductions to agriculture sector allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance demonstrated in the draft NY WIP. EPA is responsible for ensuring that nutrient and sediment reductions envisioned in draft WIP will be achieved. It is not EPA's intention to put New York farmers in an untenable position of purchasing offsets from sewer districts in Maryland and Virginia. EPA continues to work with New York on strategies that meet their TMDL allocations. With respect to your comment on excess design flows in metropolitan sewer districts, EPA notes that the nutrient trading outlined in the draft and final TMDL is fundamentally based on nitrogen and phosphorus loadings. The WLAs and LAs in the TMDL are expressed as pollutant loads and trades and offsets are presented as transactions designed to reduce pollutant loads. While facility design flow is certainly relevant, it alone does not determine pollutant loadings from a WWTP. Many WWTPs will need to reduce their loadings to achieve their WLAs in the TMDL.

Comment ID 0406.1.001.002

Author Name: Preyer John

Organization: Restoration Systems (RS)

Since 1998 RS has been in the business of providing compensatory wetland, stream, and riparian buffer mitigation; through mitigation banks, as a third party provider of Permittee Responsible Mitigation, or as a Full Delivery (all the same tasks of a bank) provider to the state run In-Lieu Fee program, the North Carolina Ecosystem Enhancement Program (NCEEP).

RS has been an active member of the National Mitigation Banking Association since 1999 and helped found a state trade association, the North Carolina Environmental Restoration Association in 2001. Through these associations and separately, RS has been an advocate on behalf of the benefits to private sector mitigation projects as well as efforts to provide high regulatory standards for all types of mitigation and worked cooperatively with both the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) on policy initiatives to professionalize the delivery and use of compensatory mitigation.

In 2008 RS successfully permitted the first private mitigation bank for providing nutrient offset credits in the country in

North Carolina. This was a result of a change in state law in 2007 which for the first time ever allowed for private mitigation banks to provide nutrient offset credits to both point and non-point sources. Up until this change the state in-lieu fee mitigation program, the NCEEP, had been the only source for providing nutrient offset mitigation, most of which it obtained from mitigation companies like RS through the competitive bid Full Delivery process going back to the inception of state mandated nutrient offset requirements in 2001. The North Carolina General Assembly recognized that since almost all of the nutrient mitigation generated by the NCEEP came from private mitigation companies it made sense to let this private industry provide the offsets directly to the impactor as well.

The RS Wellons Farm nutrient offset bank was permitted by the North Carolina Division of Water Quality in October of 2008 and a second nutrient offset site, Lane Farm subsequently permitted in March of 2009. Together these two sites provide 170,451 pounds of nutrient offset mitigation in the Neuse River Basin of North Carolina.

Over the past twelve years RS has acquired, permitted, designed, constructed, monitored, and put under permanent protection (through conservation easements) a total of 42 different compensatory mitigation projects across the Southeast. Of these, nine stream and wetland mitigation projects have already met or exceeded their USACE prescribed five year monitoring success criteria.

The bulk of the remainder of the projects, wetland and stream, riparian buffer and nutrient offset, are in either their third or fourth year of monitoring. I cite this background in order to underscore that the comments that follow are based on our first hand experience in providing compensatory mitigation, including nutrient offsets, day in and day out, as opposed to theoretical or conceptual plans which have not been borne out in practice.

RECCOMENDATIONS

1) Unleash the full power of private sector mitigation efforts: officially authorize and encourage the use of offsets.

Despite well intended efforts by both government and non-profit entities the reality is that the water quality of the Chesapeake Bay has continued to get worse in spite of the hundreds of millions of dollars spent in order to prevent this very outcome. The key missing component of the efforts to restore water quality to the Bay thus far is the absence of any incentive for private mitigation projects to generate nutrient offsets. This must change and in order for this TMDL effort to be successful, the EPA needs to bring to bear the financial resource of private mitigation efforts.

For instance, RS has been providing nutrient offsets in North Carolina from the time state law allowed private entities to do so. Since then there are now three competing private mitigation companies also selling nutrient offsets in the same watershed which services one the fastest growing metropolitan regions of the country, the Raleigh, Durham, Chapel Hill Research Triangle.

All of these companies spent their own money to purchase land for their sites and perform the restoration work which provides pounds of nutrient offset mitigation as determined and permitted by the North Carolina Division of Water Quality prior to the impact which requires the offset, i.e. not only is there no temporal ecological loss there is a significant temporal gain.

2) Provide strict regulatory enforcement on non-performing in-lieu fee programs.

In Virginia the localities have the latitude to use ad-hoc in-lieu fee, pro rata share, and other programs to comply with state prescribed stormwater nutrient reduction requirements through the payment of an arbitrarily set fee. As is the case with most in-lieu fee arrangements, sometimes called 'pay and pave' the fee is always collected up-front and the actual offset mitigation done is on the back end if ever done at all.

There is an undeniable temporal ecological loss and if the obligated offset is not performed for years afterwards then there ought to be a penalty attached to it. We have heard anecdotal reports of some municipalities in Virginia using the fees collected for nutrient mitigation going to completely unrelated municipal services such as snow removal.

If existing programs are found to have substantial backlog obligations or deficits on the fees collected vs. implemented mitigation projects then the EPA should levy a 'cease and desist' order until the program procures the requisite amount of mitigation, including any penalty attached to it, from an approved offset facility including an offset mitigation bank. The in-lieu program should then be limited to only the procurement of approved offset projects going forward and not be allowed to implement its own projects.

3) The EPA should provide the jump start to encourage private mitigation offsets.

The time is now for the EPA to bring to bear the full power and resource of private capital and green investment opportunities in a truly unprecedented size and scope. The EPA should issue a Request for Proposal for 1,000 pounds of certified and approved offset credits from each Bay state concurrent with issuance of the final TMDL. This provides the 'stick and carrot' needed to focus the attention of all relevant parties to the process.

The same Request for Proposal process should be followed again in another six months with another 1,000 pounds from each Bay state. By the second issuance of the request there will no doubt be multitude of viable offsets offered in multiple locations. If successful there could follow a rolling Request for Proposal process every six months in order to keep fulfilling the demand.

Finally, it our hope that the EPA will refrain from instituting an overly cumbersome trading system involving multiple entities adding layers of complexity to what ought to be a simple transaction between the buyer and seller. This is best accomplished by refraining from top-down command and control of the process and letting the market work.

Please provide your response to the following question: what role does EPA envision for the ability of private offset to be utilized in conjunction with this TMDL?

Response

Thank you for your comment. EPA and the Chesapeake Bay jurisdictions would be interested in receiving further information and having further discussions about a private offset approach to loadings reductions.

Comment ID 0410.1.001.014

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Given the fact that the SHA roadway system services all Maryland Bay watersheds, our challenges are exacerbated with the requirements that TMDLs be met in each segmented watershed. Unlike local governments, the SHA MS4 coverage is not limited to a small, manageable number of segmented watersheds, but rather we expect reduction goals will be assigned for SHA in all 58 segmented watersheds. For this reason, we would like to propose a banking strategy whereby a jurisdiction can over-manage in one watershed segment and achieve credit in another. This bank will be held only by the jurisdiction and would not address the concept of trading among sectors. It would be a tool by which the jurisdiction could achieve flexibility in meeting load reductions.

Response

Thank you for your comment. EPA is working with the Chesapeake Bay jurisdictions to ensure they will be able to meet their TMDL allocations through a combination of regulations, market mechanisms, voluntary actions, and enforcement. EPA suggests that SHA work with MDE and MDNR as well as with Maryland local governments to identify ways that SHA can meet its reduction goals. EPA's intent in the TMDL is to identify key components that Bay jurisdictions should include in their programs. EPA will continue to work closely with the Bay jurisdictions to ensure that their programs meet the agency's expectations.

Comment ID 0410.1.001.028

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

Because the ability of SHA to mitigate stormwater runoff from impervious surfaces is often constrained by narrow rights-of-way, SHA is very interested in trade mechanisms to meet its obligations under the TMDL, and is particularly interested in opportunities to restore public and private property adjacent to state roads within severely impacted watersheds.

SHA remains committed meet its goals as specified in the Maryland WIP and also requests that the issues of trading and compliance tracking be given high priority in future discussions of the Chesapeake Bay Partnership, and that the adopted methods allow a high degree of transparency between government agencies and landowners.

Response

Thank you for your comment. EPA is working with the Chesapeake Bay jurisdictions to ensure they will be able to meet their TMDL allocations through a combination of regulations, market mechanisms, voluntary actions, and enforcement. EPA suggests that SHA work with MDE and MDNR as well as with Maryland local governments to identify ways that SHA can meet its reduction goals. EPA would be interested in receiving information on SHA's progress in identifying restoration opportunities.

Comment ID 0411.1.001.004

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

--The Waste Load Allocation (WLA's) for industrial VPDES permit holders will likely require these companies to purchase expensive offsets if they are even available. EPA should be sensitive to this impact when evaluating any offset credit requirements.

Response

Thank you for your comment. EPA will take your comment into consideration as it works with the Chesapeake Bay jurisdictions to improve and establish nutrient credit trading programs that are orderly, accountable, transparent and effective.

Comment ID 0418.1.001.015

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Most, if not all, Bay States envision relying on considerably expanded nutrient reduction credit trading to offset new or continued discharges. The challenges of reducing overall discharges through a trading mechanism is discussed elsewhere in this comment, however the reliance on this mechanism, through partially operational or undefined trading programs, raises serious "reasonable assurance" concerns. To date, current programs in Pennsylvania and other Bay states have only handled a handful of trades. Clarification of baseline requirements and program design features will require some time before offset programs can be relied upon to accommodate new discharges.

Response

Thank you for your comment. EPA acknowledges that development and implementation of new offset and trading programs and maturation of existing programs will require some time to reliably accommodate new discharges. Meeting the TMDL allocations and accommodating growth in the jurisdictions, however, will require such programs to be implemented or enhanced in a timely manner and with appropriate safeguards and transparency. EPA will continue working with the jurisdictions to facilitate the development of these programs.

Comment ID 0418.1.001.025

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Over the last 7 years EPA has taken several steps toward developing a credible, enforceable framework for nutrient

credit trading in the Chesapeake Bay. NRDC commends the Agency's effort to ensure that nutrient trading programs are accountable and quantifiable, designed to facilitate compliance with TMDL requirements without risk of increased pollution loadings to impaired waters.

a. General Observations About Nutrient Trading

NRDC believes that the Chesapeake Bay TMDL is a good opportunity to demonstrate that a nutrient trading program, subject to strict oversight and carefully-crafted rules keyed to environmental performance targets, can help make a regulatory program function more economically efficiently. Trading is a locally appropriate tool to clean up the bay as it builds on unparalleled scientific research, modeling and data. NRDC does not endorse trading wholesale; rather, we hope that EPA and Bay states will demonstrate that a trading program does not undercut other critical water pollution goals by exacerbating local pollution problems or reducing the certainty that pollution reductions will take place. As with other elements of the Bay Program, successful work on offsets and trading in the Chesapeake Bay could serve as a powerful model to consider in other watersheds.

Trading arises in the TMDL in a few different contexts. First, because the TMDL does not provide an explicit allocation for new or increased sources of nutrients or sediment, any additional discharge of these pollutants would need to be offset by reductions elsewhere in order to be permitted.[FN 59] Second, because meeting the TMDL will require significant pollution reductions throughout the watershed, there is widespread interest in, and significant support for, a trading program that can help sources achieve needed reductions in an economically efficient manner. EPA says that it "recognizes that a number of Bay jurisdictions are already implementing water quality trading programs. EPA supports implementation of the Bay TMDL through such programs, as long as they are established and implemented in a manner consistent with the CWA, its implementing regulations," and a pair of EPA guidance documents.[FN 60] Finally, given that the problems the TMDL seeks to address are interstate in nature, EPA envisions taking steps to facilitate broad-scale trading. As the Agency observes, "EPA recognizes the value of implementing a strategy for offsets that, wherever possible, is consistent among the jurisdictions to increase credibility, scalability, and broader regional implementation such as interstate trading."

In general, NRDC believes that these different policy strands should be unified. That is, EPA should use its oversight of the state plans to meet the TMDL allocations and of state-issued permits to ensure that offsets for new growth and trades to meet reduction targets both operate by the same rules - rules that ensure transparency, accountability, scientific integrity, and consistency between jurisdictions. We believe that the circumstances are appropriate in the Chesapeake Bay for EPA to authorize interstate trades, so long as it provides detailed guidance for acceptable trades.

Appendix S, "Offsetting New or Increased Loadings of Nitrogen, Phosphorous and Sediment to the Chesapeake Bay Watershed", and Section 10, TMDL Implementation and Adaptive Management, outline broad expectations for offset programs within and between Bay states. NRDC strongly supports the use of a comprehensive set of definitions, common elements and program features that guide trading among both new and existing sources of nitrogen and phosphorous. Clear, rigorous and consistent rules will help maintain the integrity of a trading system while fostering market clarity and stability. The principles outlined in Appendix S, in combination with many strong elements in EPA trading policies, should be implemented to make sure that trading contributes to, and does not undermine, progress toward meeting the TMDL goals.

A Bay nutrient trading market will build on existing and pending state programs and help states and sectors more cost-

effectively achieve TMDL nutrient pollution limits. However, while NRDC supports consistent application of definitions and programmatic requirements, we believe that nitrogen and phosphorus should be the primary focus of the trading programs. Until proven systems are up and running and there is more science and data to evaluate program effectiveness, cross-nutrient trading and sediment trading is premature. Because Pennsylvania is the only state that currently includes sediment in its trading program, that program feature should remain distinct from the comprehensive system and be utilized for program evaluation.

[FN 59] See 40 C.F.R. § 122.4(i); *Friends of Pinto Creek v. U.S. EPA*, 504 F.3d 1007, 1014. (9th Cir. 2007) ("If point sources, other than the permitted point source, are necessary to be [controlled] in order to achieve the water quality standard, then the EPA must locate any such point sources and establish compliance schedules to meet the water quality standard before issuing a permit. If there are not adequate point sources to do so, then a permit cannot be issued unless the state or [proposed source] agrees to establish a schedule to limit pollution from a nonpoint source or sources sufficient to achieve water quality standards.").

[FN 60] Draft TMDL at p. 10-3.

Response

Thank you for your comments. EPA expects that carefully developed trading and offset programs for interstate and intrastate trading will not undercut other critical water pollution goals. EPA plans to use its oversight of the jurisdictions to ensure that offsets and trades are governed by rules that ensure transparency, accountability, scientific integrity, and consistency between jurisdictions.

Comment ID 0418.1.001.027

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

b. Responses to Specific Trading Issues Raised By EPA

i. Trading Must be Protective of Water Quality.

NRDC strongly supports EPA's position that trading may only be used as a tool to improve water quality and that "trades do not cause or contribute to an exceedance of WQS in either receiving segment or anywhere else in the Bay watershed." [FN 62]

ii. Baselines for Creating Tradeable Credits Must Account for All Applicable Requirements.

The proposed definition of offset baseline as the "amount of pollutant loading allowed by a wasteload or load allocation" is significant. Having a clearly understood and enforceable baseline is a fundamentally necessary element of a credible program and NRDC supports EPA's approach.[FN 63] NRDC supports numeric baselines for credit generators rather

than suites of best management practices (BMPs). In the absence of a numeric baseline it is much more difficult to verify that BMPs are achieving results. In its Guide for EPA's Evaluation of Phase I Watershed Implementation Plans, the Agency asks each jurisdiction to ensure that offsets account for "attainment of the Bay TMDL or local water quality baseline by the generator of the offset." [FN 64] NRDC supports this approach.

In Appendix S, EPA establishes minimum controls for point source credit users as "relevant minimum technology-based standards or secondary treatment standards." NRDC agrees with this position; the Clean Water Act's success in large measure is attributable to the consistent application of technology-based standards, and we would not support trading out of such obligations.

iii. Credit Calculation and Verification Protocols Must be Rigorously Scientific.

NRDC supports EPA's approach of requiring appropriate metrics and verification systems to ensure that credits are producing expected reductions. Equivalency, distance accounting and accounting for overall uncertainty may require margins of safety in both allocations and trading ratios. Pages 19-23 in Section 6 of the TMDL draft discuss the Agency's conclusion that all pollution reductions are not equivalent. For example, "[n]orthern, major river basins have greater relative influence than southern major river basins, because of the general circulation patterns of the Chesapeake Bay..." Likewise, "[r]iver basins whose loads discharge directly to the mainstem Bay, like the Susquehanna, tend to have more effect on the mainstem Bay segments than basins with long riverine estuaries (e.g., the Patuxent and Rappahannock rivers)." In view of these observations, the trading program within the Bay needs to account for relative influence; for instance, if credits generated in less influential watersheds are used to offset growth in more influential ones, the Agency needs to secure a greater than 1:1 trading ratio.

As noted in Appendix S, monitoring is an important way of verifying that reductions used as credits actually occur. NRDC would go a step further; in general, we believe that, in order to create a tradable credit, the generator should monitor current conditions and then keep on monitoring to be sure the credit is in fact generated. If there are challenges to monitoring certain source categories EPA should issue guidance to establish appropriate monitoring protocols. [FN 65]

At a bare minimum, if EPA intends to permit credit generation in the absence of monitoring data, it is necessary to follow the Agency's suggestion (in section 5(a)(ii) of Appendix S) that using an increased trading ratio to account for a lack of monitoring. In this circumstance, significant compliance assurance efforts (regular inspections, etc.) are even more necessary. In addition, a trading ratio of some size would also create an appropriate margin of safety for those states that are relying on trading significantly to achieve the TMDL allocations.

iv. EPA Must Insist on Safeguards to Provide Assurance that Trades do not Undermine TMDL Compliance.

NRDC supports the inclusion of safeguards to ensure that water quality is protected. However, the policy reflected in Appendix S only "restricts" the use or generation of offsets by an unpermitted point source not in compliance with its NPDES permit or other legal requirement. NRDC believes that non-compliant entities should not be permitted to use or create offsets, because a trading program relies on full compliance by participants for its success. This policy should be clarified to "prohibit the use or generation of offsets by an unpermitted point source or source not in compliance with NPDES or a jurisdiction equivalent, or other federal or state law or regulation." [FN 66]

NRDC also suggests that all Chesapeake Bay watershed waters have objective numeric nitrogen and phosphorus criteria, or other criteria backed by well-understood guidance that translates them into numeric nitrogen and phosphorus targets, in place before allowing buyers within these waters to purchase credits towards meeting the Bay TMDL allocations or allowing credit generation within such waters. We suggest that states be required to put such criteria in place before trades begin, as those criteria are essential to any critical and objective evaluation of whether a given trading transaction will cause or contribute to a water quality standards violation.

v. Certification and Enforceability Mechanisms Are Essential.

EPA outlines a number of important certification and enforcement mechanisms in section 7 of Appendix S. NRDC supports EPA's approach. Having states estimate the increased pollutant loading from nonpoint sources and discharges from point sources that will not be permitted and acquiring offsets needed to fully offset such increases will be necessary in order to stay on track. We believe that the information must be clearly recorded in an instrument that is also publicly reviewable and that periodic review inspection and auditing occur to ensure that the estimates are an accurate reflection of actual loads.

Additionally, while NRDC believes that offsets and other trades must be reflected in permitted sources' NPDES permits, we also believe that offsets may occur without reopening or modifying a permit. Instead, EPA policy should ensure that credits and trade requirements are incorporated directly or by reference into enforceable permit requirements under the NPDES system established under section 402 or state permitting authority for all credit purchasers covered by such permits. This permitting approach would allow trading to occur without requiring the reopening or reissuance of permits to incorporate individual trades, but would incorporate any such trades directly or by reference as enforceable terms of those permits once the credit purchase has been approved by the permitting agency.[FN 67] Additional provisions to ensure that the buyer is responsible for making pollution reductions if the credits purchased are not realized are necessary.[FN 68]

To further support transparency and enforceability, EPA should develop model permit provisions for state use that allow for trades to occur during the term of the permit without reopening it, so long as the credit user remains responsible in its permit for any failure (including a failure by the credit generator) to meet WQBELs/WLAs, and the permit obliges the user to monitor, track, and report publicly on the use of the credit and the continuing validity of the credit. Finally, private contracts between credit buyers and sellers must contain adequate enforceability provisions and all agreements between offset generators and users should be civilly enforceable.

vi. Trading Can Only Support the TMDL If the System Requires Fully Accountable and Transparent Trades.

An accountable, trackable permit system must be in place in order to achieve meaningful results. Requirements to ensure that offsets are quantified and verified, that the location of the offset is established, that offsets not be sold more than once, and that offsets are reviewed and monitored are essential. Appendix provision 8(b) should be strengthened to ensure uniform basin-wide standards that are consistent with minimum EPA guidelines, not simply "standards established by the jurisdiction." Provision 8(i) likewise should be improved to require the demonstration of sufficient offsets being acquired over the period of increased or new loading.

In addition, while the need for accountability and transparency is referenced in EPA's policy, the current language is vague. The final TMDL should require a publicly accessible registry of trades and include explicit inspection, monitoring

and auditing protocols.[FN 69] The registry should record information used in the certification and verification process and the trading transaction information on creation, sale, amounts and use of credits. Finally, third party verification and certification of credits should be provided for under both state and interstate trading programs.

[FN 62] *Id.* at p. 10-3. 63 U.S. EPA Office of Water, Water Quality Trading Policy (Jan. 13, 2003), available at <http://water.epa.gov/type/watersheds/trading/finalpolicy2003.cfm> (hereinafter "EPA Water Quality Trading Policy") ("the baselines for generating pollution reduction credits should be derived from and consistent with water quality standards"). 64 U.S. EPA, A Guide for EPA's Evaluation of Phase I Watershed Implementation Plans, at 4 (Apr. 2, 2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/GuideforEPAWIPEvaluation4-2-10.pdf.

[FN 63] U.S. EPA Office of Water, Water Quality Trading Policy (Jan. 13, 2003), available at <http://water.epa.gov/type/watersheds/trading/finalpolicy2003.cfm> (hereinafter "EPA Water Quality Trading Policy") ("the baselines for generating pollution reduction credits should be derived from and consistent with water quality standards").

[FN 64] U.S. EPA, A Guide for EPA's Evaluation of Phase I Watershed Implementation Plans, at 4 (Apr. 2, 2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/GuideforEPAWIPEvaluation4-2-10.pdf.

[FN 65] *Cf.* U.S. EPA, Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992, available at <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/final52002.cfm> ("EPA's 1991 document, Guidance for Water Quality-Based Decisions: The TMDL Process (EPA 440/4-91-001), recommends a monitoring plan to track the effectiveness of a TMDL, particularly when a TMDL involves both point and nonpoint sources, and the WLA is based on an assumption that nonpoint source load reductions will occur. Such a TMDL should provide assurances that nonpoint source controls will achieve expected load reductions and, such TMDL should include a monitoring plan that describes the additional data to be collected to determine if the load reductions provided for in the TMDL are occurring and leading to attainment of water quality standards.").

[FN 66] See EPA Water Quality Trading Policy ("EPA recommends that states and tribes consider the role of compliance history in determining source eligibility to participate in trading.").

[FN 67] See *id.* ("EPA does not expect that an NPDES permit would need to be modified to incorporate an individual trade if that permit contains authorization and provisions for trading to occur and the public was given notice and an opportunity to comment and/or attend a public hearing at the time the permit was issued.").

[FN 68] See *id.* ("In the event of default by another source generating credits, an NPDES permittee using those credits is responsible for complying with the effluent limitations that would apply if the trade has not occurred.").

[FN 69] See *id.* ("EPA supports public participation at the earliest stages and throughout the development of water quality trading programs to strengthen program effectiveness and credibility.")

Response

Thank you for your comments. EPA agrees that rigorous oversight, accountability, transparency, and measurement are important

components of a successful and legitimate offset and trading program. EPA is working with the Bay jurisdictions to incorporate such elements into the existing and planned jurisdictional programs. EPA will review the progress of the jurisdictions in developing or strengthening their programs in 2011 and will expect the jurisdictions to commit to needed improvements in their Phase 2 WIPs. EPA will consider the suggestions in the comments as it works with the jurisdictions in this effort.

Comment ID 0418.1.001.029

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

c. Comments on State WIPs' Discussion of Trading and Offsets

Pennsylvania

Pennsylvania has done significant work to develop its state nutrient trading program and openly encourages EPA and other states to build on its groundwork. While there is much to be learned from Pennsylvania's pioneering work, NRDC does not support the baseline approach used by the state and encourages EPA to develop a consistent baseline approach throughout the watershed.

Pennsylvania's program specifies that its "baseline includes compliance with the erosion and sedimentation requirements for agricultural operations in Chapter 102 (relating to erosion and sediment control), the requirements for agricultural operations under § 91.36 (relating to pollution control and prevention at agricultural operations), § 92a.29 (relating to CAFOs) and the requirements for agricultural operations under Chapter 83, Subchapter D (relating to nutrient management), as applicable." [FN 71] Additional "threshold" requirements are included, such as: "[m]anure is not mechanically applied within 100 feet" of various surface waters; "[a] minimum of 35 feet of permanent vegetation is established between the field" and such waters; or the reduction credit claimed for the activity is discounted by 20%. [FN 72] The reductions resulting from many of these practices are difficult to account for and enforce and do not ensure that actual pollutant reductions are met.

In addition, Pennsylvania's WIP further explains that compliance with nutrient management plans will be determined by money spent and complaint-driven audits. Without verification of nutrient application practices and auditing of plan implementation, these requirements are woefully insufficient to guarantee pollution reductions.

NRDC believes that EPA should insist that Pennsylvania adjust its trading baseline to be a numeric one. We understand that the credit generation process - at least with respect to nonpoint sources -- will be somewhat predictive and thus needs to include several safeguards, [FN 73] and should incorporate monitoring mechanisms to verify reductions later. However, we do not believe that credits can solely be based on estimated reductions, so some mechanism to establish a numeric baseline prior to the credit-generating activity and verifying the reductions afterwards needs to be part of EPA's review of the reliability of state trading regimes and the Agency should object to permits that rely on trades that are unreliable or that are otherwise inconsistent with the TMDL.

Additionally, Pennsylvania's WIP relies heavily on expansion of nutrient trading opportunities to achieve compliance in

the stormwater sector. As discussed above, trading in sediment is still nascent and data have not yet established clear programmatic results. It is premature for Pennsylvania to rely on trading to achieve sediment reductions for stormwater.

Maryland

Maryland has done considerable work to develop its own trading policies. NRDC applauds Maryland's use of the local water quality standard of the TMDL as the baseline. NRDC also supports Maryland's pioneering approach to WWTP, requiring upgrades such that WWTP in Maryland may become a source of credits, rather than a purchaser, as envisioned in other state WIPs.

[FN 71] 25 Pa. Code § 96.8(d)(2)(i)

[FN 72] Id. § 96.8(d)(3).

[FN 73] See EPA Water Quality Trading Policy ("EPA supports a number of approaches to compensate for nonpoint source uncertainty. These include monitoring to verify load reductions, the use of greater than 1:1 trading ratios between nonpoint and point sources, using demonstrated performance values or conservative assumptions in estimating the effectiveness of nonpoint source management practices using site- or trade-specific discount factors, and retiring a percentage of nonpoint source reductions for each transaction or a predetermined number of credits.").

Response

Thank you for your comments. EPA appreciates the significance of the baseline for offsets and trading and will work with the jurisdictions to ensure that their baselines are appropriate and defensible. EPA will review the progress of the jurisdictions in developing or strengthening their programs in 2011 and will expect the jurisdictions to commit to needed improvements in their Phase 2 WIPs.

Comment ID 0418.1.001.032

Author Name: Devine Jon

Organization: Natural Resources Defense Council (NRDC)

Virginia

NRDC concurs with EPA's critique that Virginia's WIP is heavily reliant on achieving nutrient reductions through trading (an expanded Nutrient Credit Exchange), but that programmatic elements to ensure that reductions actually occur are lacking. In particular, clear baselines and enforceable standards must be in place for stormwater before EPA can base its reasonable assurance conclusion on the expansion of trading. EPA's substantive guidance also is needed to provide the state Assembly with direction about the needed components of any effort to expand the nutrient trading program.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange, which should address some of the issues identified in the comments. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0424.1.001.001

Author Name: Revere Aaron

Organization: Tredegar Corporation and Falling Springs, LLC

Virginia has developed the Virginia Nutrient Credit Exchange Association (the "Exchange"), a trading program designed to enable point sources to trade nutrient credits. The program has since been expanded to address new stormwater discharges and agriculture and forest land. The Virginia Watershed Implementation Plan ("WIP") proposes to expand this program even further to allow full participation by all sources of wastewater, storm water and on-site septic systems. Virginia's WIP also includes significant reductions for urban storm water sources to encourage the trading of credits among municipal sources of nutrient discharges.

Virginia's expanded trading program represents an approach to water quality management that makes sense from an environmental and efficiency perspective. Virginia has documented its goals and expectations for the program, as well as a recognition that, through adaptive management, additional changes may be necessary in the future to ensure that the Bay water quality restoration goals are in fact achieved.

EPA appears to have rejected DEQ's trading proposal, citing a lack of "regulatory drivers to create a demand for credits within a specified time period." EPA Comments on Virginia's Draft WIP, October 4, 2010. Virginia's WIP has proposed stringent reductions, designed to achieve the desired Bay restoration goals, and a trading framework and trading partners have already begun establishment in reliance on that framework. Tredegar encourages EPA to allow Virginia's trading program to move forward. The adaptive management framework proposed by Virginia will enable revisions to be made if the trading program is not as successful as is expected. But, based on Tredegar's experience with environmental credit markets to date, the program can and should provide an effective means of achieving the desired nutrient reductions.

In order for the trading program to work, the baseline practices and requirements should provide sufficient flexibility to allow for source sector trading to meet ambitious reduction targets. Setting stringent baseline reductions and not allowing trading to occur until after those baseline reductions are achieved would eliminate most of the incentives and opportunities for an effective trading program. Consideration should be given to encouraging the private market to proactively mitigate (via offsets and/or credits) these regulated loads flowing into bay watersheds. Additionally and perhaps most unfortunately, EPA's changing focus from nutrients to sediment upsets the decision factors for facilities already committed to participating in the nutrient trading program.

Tredegar encourages EPA to continue to explore the opportunities for including trading as a proactive tool for achieving the Bay restoration goals. Virginia's Nutrient Credit Exchange Program offers a good platform for exploring new opportunities for trading. EPA's TMDL should not foreclose or eliminate the incentives associated with that program.

Response

Thank you for your comments. EPA does not approve or disapprove WIPs. EPA believes that rigorous oversight, accountability, transparency, and measurement are important components of a successful and legitimate offset and trading program. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers necessary to stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0432.1.001.017

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

9. Federal standards for nutrient credit trading should not contradict the rules and standards already established under state programs.

As EPA is aware, Pennsylvania has established a state program for trading of nutrient and sediment credits. This program is currently in operation, and numerous transactions for trading of credits have already been made. Pennsylvania and its stakeholders worked effectively and cooperatively in the creation of this program and the formation of the governing rules of nutrient trading to facilitate participation by potential buyers and sellers and encourage programs and practices for overall reduction in nutrient and sediment pollution.

Farm Bureau strongly believes that Pennsylvania's nutrient trading program is a legitimate and viable program that will provide significant future opportunities for implementation of economically and environmentally effective programs among public and private sectors in the Bay watershed. However, for this program to be successful, both buyers and sellers of nutrient trading must have high confidence that today's governing rules for generation of tradable credits will not be generally compromised in the future or compromised by application of "special" rules. Those who must rely on purchase of credits to attain legal compliance will not be willing to make the significant commitment of money to purchase credits if they fear the rules might be changed to make their credits unusable. And those who may be able to generate credits through best management practices will not be willing to incur the significant costs necessary to implement these practices if they fear the rules might be changed to reduce or eliminate the credits that may be generated.

We have concerns from EPA's recent administrative activities and communications that Pennsylvania's nutrient trading program will be seriously compromised under EPA's future demands of this program. We particularly are concerned that EPA might try to unilaterally superimpose unworkable nutrient trading rules, excessive prerequisites for trading and dismal limitations in the number of tradable credits to be generated from best management practices.

Where trades have already occurred and credits pursuant to trades have been legitimately generated under Pennsylvania's current trading rules, those credits purchased and relied on by the purchaser must be given full faith and

credit toward the purchaser's regulatory compliance, regardless of any future changes in trading rules and standards.

We are also seriously concerned with EPA's consideration to impose additional threshold requirements for attainment of TMDL loadings by individuals, land use sectors and regions as a prerequisite for generation of tradable credits from best management practices. These requirements would soundly discourage participation in nutrient trading to achieve regional nutrient and sediment reductions, and will stifle proactive efforts to direct capital resources toward environmental programs, which can be fostered through nutrient trading.

Response

Thank you for your comment. EPA is mainly interested in developing and expanding offset trading programs in consistent with the definitions and common elements described in the TMDL Appendix, and less so in revisiting the value of credits generated and relied on in the past under existing programs such as Pennsylvania's. EPA is working with the jurisdictions to ensure they will be able to meet their TMDL allocations through a combination of regulations, market mechanisms, voluntary actions, and enforcement. EPA believes that rigorous oversight, accountability, transparency, and measurement are important components of a successful and legitimate offset and trading program. The TMDL will have achieved its purpose when the Chesapeake Bay and its tributaries meet the applicable water quality standards.

Comment ID 0434.1.001.007

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

--A trading program presents a sensible, cost-effective approach to achieving reductions and enables the agricultural community to serve as a much needed relief valve for sources that cannot achieve assigned reductions.

Response

Thank you for your comment. EPA is optimistic that offset and trading programs are compatible with achieving the loadings reductions required under the TMDL and may be an important mechanism for certain sectors.

Comment ID 0434.1.001.009

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

II. There is an Important Role for Agriculture in the Trading Program Included in Virginia's WIP.

Virginia's WIP recognizes the costs and operational impacts of achieving the necessary nutrient and sediment

reductions. Accordingly, Virginia has structured a WIP that allows flexibility in how those reductions are achieved by including a comprehensive trading program.

EPA's proposed TMDL leaves no opportunity for trading or other creative, cost-effective solutions. By ratcheting down on all sectors unilaterally, there are no relief valves to encourage collaboration in achieving the Bay restoration goals. Due to the fact that neither EPA nor Virginia have regulatory authority over agricultural sources, the agricultural community has traditionally served as that relief valve, offering to partner with point sources and participate in innovative programs to make significant reductions. EPA's proposal eliminates those opportunities.

The agricultural community has a meaningful and important role to play in the trading process. Agricultural operations provide a lower-cost means of achieving nutrient and sediment reductions. Through trading, a farmer would be compensated for voluntarily reducing nutrient and sediment discharges from his/her farm. The baseline for establishing credits for agricultural operations should be set, as Virginia proposed, based on conservation plans established at the farm level. Farms can then determine additional voluntary projects to achieve greater reductions and generate credits.

The VA Farm Bureau encourages EPA to support Virginia's trading program. The trading program included in Virginia's WIP creates a strong framework for targeted reductions that encourage trading. EPA's proposed TMDL removes much of the incentives necessary for a successful trading program.

Response

Thank you for your comments. The Chesapeake Bay TMDL explicitly encourages the development and implementation of offset and nutrient credit trading programs to meet the TMDL allocations. EPA recognizes the success of Virginia's program and supports its proposed expansion together with the proposed regulatory drivers that are necessary to stimulate demand in nutrient credit markets.

Comment ID 0435.1.001.014

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

I. Nutrient Credit Exchange

The Nutrient Credit Exchange program is a creative and adaptable means of reducing the target pollutants from entering the Bay. We are concerned with the high reliance on the availability of credits from the point source and agriculture sectors to assist the Municipal Separate Storm Sewer System (MS4) in attaining their sector allocations. The City may not be able to rely on the exchange of credits from an independent agency to balance storm water reduction loading as suggested in the Draft WIP. We believe that the state has failed to provide adequate details in the Draft WIP on how exchange program will be managed, thereby leaving the localities unable to thoroughly consider the impact of this program.

There is no assurance from the State or the EPA that nutrient credits generated beyond the boundaries of one

permitted MS4 will account for waste load allocations (WLAs) required within a different MS4. The ability to generate nutrient credits in a highly developed area such as Norfolk, with minimal agricultural exchange opportunities, is extremely limited. If trading across MS4 boundaries is not explicitly allowed nor managed at the state level, the use of nutrient credits by Norfolk for meeting its required storm water load reductions will be greatly limited.

Additionally, as you are aware, many municipalities in Virginia participate in regional waste water collection districts. City residents, for example, are customers of the Hampton Roads Sanitation District for wastewater treatment. These point source districts are issued their own allocation within the TMDL. There is no assurance that the sanitation districts will generate the additional credits when, where, and in the amount they will be needed to offset MS4 requirements. Also, a credit program with point source sectors is generated from excess flow capacity. With population growth in this highly developed urban area, the credit exchange program would only be available to the MS4 on a temporary basis.

The reductions that would be required of urban runoff with the Draft WIP allocations are so great that the demand for credits could exceed the supply in both available agriculture or point source sectors. The limited credits available for exchange will thus drive up demand and costs and limit their availability to Norfolk, particularly if Norfolk is forced to compete with private developers for those scarce credits. Due to the limited credits available for exchange, the program as outlined in the Draft WIP may have long-term financial consequences for the residents of a permitted MS4 such as Norfolk.

For the Nutrient Credit Exchange program to be successful, the Commonwealth would need to manage its implementation and associated agreements. This would add a substantial organizational element that needs to be outlined in the Final WIP.

Response

Thank you for your comment. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and agrees that the jurisdiction plays a critical role in the implementation of the program and its expansion. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented. EPA's TMDL document does acknowledge the flexibility of interbasin and intrabasin trading and trading between various sectors, provided that such transactions can be achieved in a transparent and accountable manner and conform with the safeguards outlined in the TMDL Appendix.

Comment ID 0442.1.001.007

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

6. EPA and States Need to Provide Local Governments and Wastewater Utilities with as Much Flexibility as Possible

Because the state Phase I WIPs do not address reductions or implementation practices at the local level, it is not clear how much flexibility local governments and other stakeholders will have in pursuing implementation plans. The states should build in, and EPA should accommodate, the ability for local governments to reallocate assigned loads among

different source sectors (e.g., between stormwater, wastewater, and air loads), for local governments and utilities to trade allocations and load reductions among different wastewater plants, for local governments and utilities to be able to take advantage of viable trading programs outside their jurisdictional boundaries. However, we have major concerns as to whether such trading programs will prove to be successful, given their very limited track records to-date and the many uncertainties associated with determining what baseline conditions must be achieved before which trading can actually occur. Also, while EPA's TMDL (ref. Section 10.2 Water Quality Trading, and Appendix S. Offsets for New or Increased Loadings of Nitrogen, Phosphorus, and Sediment to the Chesapeake Bay Watershed), and the state Phase I WIPs clearly support trading - there are very few specifics regarding how trading from all sectors can actually be implemented, or what the baseline assumptions are.

Recommendation #6A: Conceptual Support for Maryland's and Virginia's Nutrient Trading Proposals

We support the expansion of Virginia's Chesapeake Bay Nutrient Credit Exchange Program, as proposed in the WIP (Virginia WIP, pp. 3 - 6), but much more detail must be developed before it can be ascertained whether the program provides local governments with a viable trading option. We support expansion of Maryland's Policy on Nutrient Cap Management and Trading (Maryland WIP, p. 3-10) to incorporate trades between sectors. We propose that assessments of the success of inter- and intra-state trading programs be made part of the 2-year milestone reporting process and that state implementation plans be adjusted accordingly.

Recommendation #6B: Federal Trading Guidelines Should Define Minimal Requirements & Greater Efforts Should be Made (by both federal and state) to Provide Incentives and Remove Barriers to Trading

It is important that the specific details of how trading can be implemented be defined so that local governments and utilities understand the range of options available to them and know how to implement them. And it is appropriate for EPA's TMDL to define minimal requirements to ensure that equity and water quality issues are addressed consistently across the Bay watershed; but the details of such trading programs and requirements should be defined in the state WIPs and programs. Also, there are many regulatory and programmatic issues that various sectors face when considering trading. EPA and the states should work together to eliminate barriers and develop incentives to help make trading a robust and viable process in the Bay watershed.

Response

Thank you for your comments. EPA acknowledges that plans to implement and enhance offset and trading programs in the Bay jurisdictions include a measure of uncertainty. EPA will continue to work with the jurisdictions to support the success of such programs and to implement all measures needed to meet the TMDL allocations. EPA supports the expansion of offset and trading programs to incorporate transactions across sector. EPA agrees that rigorous oversight, transparency, and accountability are important elements of successful and legitimate offset and trading programs.

Comment ID 0443.2.001.006

Author Name: Moore Shannon

Organization: Frederick County Government

The County provides the following comments on the Executive Summary of the TMDL: p. 7: We are also concerned

about the over-reliance on the state's agricultural trading program to provide offsets for all new development when the program is in its infancy, is currently only set up for trades between Ag and WWTPs, and has extremely low enrollment from farms.

Response

Thank you for your comment. EPA agrees that accommodating growth and reducing loads from the agricultural sector represent significant challenges for the Bay jurisdictions. EPA is working with the jurisdictions to ensure they will be able to meet their TMDL allocations through a combination of regulations, market mechanisms, voluntary actions, and enforcement. EPA is recognizes that implementation of the TMDL as envisioned in state Watershed Implementation Plans will very likely affect growth patterns, land use, and agricultural use preservation. The TMDL attempts to provide a framework through which each of these components can support the preservation and restoration of the Chesapeake Bay.

Comment ID 0445.1.001.004

Author Name: Lerch Joe

Organization: Virginia Municipal League (VML)

We support the expansion the Nutrient Credit Exchange (NCE).

By expanding this program to allow for full participation from wastewater, stormwater and on-site septic systems, local governments will be empowered with a necessary tool in making cost-effective decisions in meeting target loads at the sub watershed level. Understanding that EPA has specific concerns regarding the lack of details to this proposal, and that both the EPA and the State of Virginia are working to resolve this issue for inclusion in the final draft Phase I WIP, VML as a member of the Virginia TMDL SAG (strategic advisory group) offers our support in resolving any issues related to local government's role in facilitating and participating in an expanded NCE. Additionally, we contend that some details of an expanded NCE will most likely be addressed with development of the Phase 2 WIP.

VML recognizes that there are many other issues affecting our members -legal, technical, and scientific in nature - that need resolution prior to adoption of the Phase 1 TMDL. Given that many of our member governments belong to both VAMWA [See comment EPA-R03-OW-2010-0288.1] and VAMSA [see comment EPA-R03-OW-2010-0293.1], we offer our support for addressing these issues as outlined in the comments of both organizations.

Response

Thank you for your comments and offer of support. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. . EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

EPA is aware that meeting TMDL allocations will involve local governments, which already manage a significant workload. EPA

is working to identify means of providing technical support to local governments to reduce the burden of planning for the TMDL and implementing measures associated with the TMDL.

Comment ID 0463.1.001.002

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

2. Reliance on an Expanded Nutrient Credit Exchange Program

Virginia's Draft Phase I Watershed Implementation Plan (WIP) relies heavily on an expansion of the VA Nutrient Credit Exchange Program for trading between all Source Sectors. Expansion of this state program will require a massive retooling and a great amount of resources to reach operability, and new regulations will be required. The implementation of this program must insure that there is no negatively impact local water quality. Credits generated from outside the local watershed may benefit the Bay, but has a potential of siphoning resources away from local water resources improvements in highly urbanized areas. However, effective administration of the program may provide trading needed to meet sector allocations if successfully implemented. Any existing programs based on similar principles that are designed to make water quality improvements locally should remain unaffected by such a program.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and its proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

EPA shares your concern that offset and nutrient credit trading programs not cause water quality or other environmental problems in the Bay watershed. This type of unintended consequence is directly addressed by the common elements of offset and trading programs in the draft and final TMDL as well as EPA's existing water quality trading policy and trading toolkit for NPDES permit writers (documents cited in the TMDL Appendix). It is EPA's view that if an offset or trade would result in local exceedances of water quality standards, that such a trade could not be authorized under EPA regulations. EPA will continue to work closely with the Bay jurisdictions to ensure that such unintended consequences are avoided. Offset and trading programs, furthermore, rely on the principle that the sites and facilities providing offsets or generating credits meet all applicable federal and state regulations, including meeting applicable TMDL allocations.

Comment ID 0467.1.001.013

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

How will nutrient credit generation and purchase be calculated given different delivery ratios in the 5.3 Chesapeake Bay Watershed Model versus the 4.3 Chesapeake Bay Watershed Model, the latter of which was used by the Department to develop its trading program?

Response

Thank you for your question. The possibility exists that adjustments to delivery ratios, edge of segment factors, and best management practice efficiencies may be needed as the Chesapeake Bay Watershed Model is revised. Such changes may impact nutrient credit generation and purchases under the existing offset and trading programs, but EPA is committed to minimizing such impacts on existing offset and nutrient credit transactions to the extent possible and appropriate.

Comment ID 0467.1.001.019

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

VII. Trading

A. It is clear that Nutrient Credit trading will be severely impacted by the delivery ratio issue discussed earlier in these comments. All trades, including those that have taken place, may be suspect if delivery ratios change during the trading process. The Bay TMDL should also address and delineate guidelines for both interstate and intrastate trading.

B Does EPA support Pennsylvania's trading program as currently set forth in Pennsylvania's draft WIP?

C. EPA's "backstop allocation" approach will dramatically hinder Pennsylvania's Nutrient Trading program, essentially eliminating all point sources as sellers of credits.

Response

Thank you for your question. The possibility exists that adjustments to delivery ratios, edge of segment factors, and best management efficiencies may be needed as the Chesapeake Bay Watershed Model is revised. Such changes may impact nutrient credit generation and purchases under the existing offset and trading programs, but EPA is committed to minimizing such impacts on existing offset and nutrient credit transactions to the extent possible and appropriate. EPA will continue to work with Pennsylvania to ensure that its trading program meets EPA's expectations, including by reviewing the jurisdiction's program in detail in 2011.

In establishing the TMDL, EPA is responsible for ensuring that nutrient and sediment reductions from both point and nonpoint sources in the TMDL are supported by a clear set of functional programs that provide the reasonable assurance the load allocations and wasteload allocations in the TMDL will be achieved. EPA carefully considered the content of the jurisdictions' draft and final Phase I WIPs in its preparation of the draft TMDL for public comment and in establishing the final TMDL for Chesapeake Bay.

EPA's proposed reductions to POTW allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance demonstrated in draft Phase I WIPs.

In the final TMDL, the load allocations and wasteload allocations are with some exceptions, consistent with the load allocations and wasteload allocations proposed by the jurisdictions in their final Phase I WIPs. In some cases, the load and wasteload allocations in the TMDL differ from what was contained in the draft TMDL for public comment, the jurisdictions' draft Phase I Watershed Implementation Plans, and/or the jurisdictions' tributary strategies. The degree to which such allocations differ from these earlier documents varies by jurisdiction and sector.

EPA recognizes that more restrictive WLAs on a POTW may affect that source's ability to generate nutrient credits. EPA has worked closely with Pennsylvania in the development of its trading program. With the finalization of the Chesapeake Bay TMDL, EPA intends to continue to work with the Commonwealth to help ensure that Pennsylvania trading program is successful in meeting the state's TMDL allocations.

Comment ID 0467.1.001.027

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

NOW THEREFORE, the Authority strongly objects to EPA's proposed discharge limits and encourages EPA and DEP to reach an agreement which would result in the abandonment of EPA's proposed discharge limits as set forth in the draft Chesapeake Bay TMDL.

Response

In establishing the TMDL, EPA is responsible for ensuring that nutrient and sediment reductions from both point and nonpoint sources in the TMDL are supported by a clear set of functional programs that provide the reasonable assurance the load allocations and wasteload allocations in the TMDL will be achieved. EPA carefully considered the content of the jurisdictions' draft and final Phase I WIPs in its preparation of the draft TMDL for public comment and in establishing the final TMDL for Chesapeake Bay. In the final TMDL, the load allocations and wasteload allocations are with some exceptions, consistent with the load allocations and wasteload allocations proposed by the jurisdictions in their final Phase I WIPs. In some cases, the load and wasteload allocations in the TMDL differ from what was contained in the draft TMDL for public comment, the jurisdictions' draft Phase I Watershed Implementation Plans, and/or the the jurisdictions' tributary strategies. The degree to which such allocations differ from these earlier documents varies by jurisdiction and sector.

Comment ID 0468.1.001.006

Author Name: Harry Jennifer

Organization: PennAg Industries Association

5. The Pennsylvania Nutrient Trading Program was the first of its kind. To date, trades and commitments have been made based on this existing program. EPA should look to this as the model and use it. Rather than change it or develop another system. EPA needs to support the Pennsylvania Nutrient Trading and Offset Program. With the understanding that trading among States will be necessary to obtain overall compliance with the Chesapeake Bay restoration efforts.

Response

Thank you for your comments. EPA continues to support Pennsylvania's Nutrient Trading Program. EPA will continue to work with Pennsylvania to ensure that these programs meet EPA's expectations under the Chesapeake Bay TMDL.

With regard to interstate trading, EPA is aware that the World Resources Institute (WRI) is currently leading a collaboration to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed, and EPA remains very interested in this project. The project is intended to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to support this work.

Comment ID 0473.1.001.017

Author Name: Pechart Michael

Organization: Pennsylvania Department of Environmental Protection and Department of Agriculture

--EPA needs to support Pennsylvania's nutrient and sediment trading program, which is now supported by state regulations. It would be counterproductive for EPA to transform Pennsylvania's existing state trading program into EPA's ideal of a program. Pennsylvania maintains that flexibility is important and questions the appropriateness of including definitions and common elements of offset and trading programs as an appendix to a TMDL. If, nonetheless, the appendix remains in the final TMDL, EPA should remove references to sector allocations, more clearly define and use the terms "credit" and "offset," clarify what is meant by "water chemistry variations" and "intermediary segments," replace "sold" with "used" regarding offset or credit tracking, and reconsider the expectation that a state agency or other institutional entity would anticipate annual increased pollutant loading from nonpoint and unpermitted point sources and acquire offsets to cover them.

Response

Thank you for your comments. EPA continues to support Pennsylvania's Nutrient Trading Program. EPA will continue to work with Pennsylvania to ensure that its program meets EPA's expectations under the Chesapeake Bay TMDL. EPA has attempted to clarify terms presented in Appendix S of the draft TMDL to the extent possible and appropriate, and will continue to work with the Bay jurisdictions to consider and address these concepts in their programs.

Comment ID 0498.1.001.003

Author Name: Walls Brent

Organization: Potomac Riverkeeper

Nutrient Trading Nutrient

Hot Spots

Nutrient trading has the potential to create hotspots in local waters. Growth in the West Virginia Eastern Panhandle like many other urban areas connected to DC and Baltimore will continue to increase. These areas have predominantly wealthier residents paying taxes to local governments to handle their sewage. It is in these areas that governments can afford to purchase nutrient credits, and it will continue to be these areas that will receive greater and greater growth requiring ever increasing need for offsets through trading. Trading is not sustainable. These local rivers and streams will also be the first choice for residents to visit and recreate, but not if the nutrients discharging into these rivers creates a smelly algae soup.

Response

Thank you for your comments. EPA shares your concern that offset and nutrient credit trading programs not cause water quality or other environmental problems in the Bay watershed. This type of unintended consequence is directly addressed by the common elements of offset and trading programs in the draft and final TMDL as well as EPA's existing water quality trading policy and trading toolkit for NPDES permit writers (documents cited in the TMDL Appendix). It is EPA's view that if an offset or trade would result in local exceedances of water quality standards, that such a trade could not be authorized under EPA regulations. EPA will continue to work closely with the Bay jurisdictions to ensure that such unintended consequences are avoided. EPA understands that the TMDL will affect patterns of growth and economic development, including POTW and sewer capacity, in the watershed. Such adjustments are necessary to achieve the objective of the TMDL, which is to meet water quality standards throughout the watershed.

Comment ID 0498.1.001.005

Author Name: Walls Brent

Organization: Potomac Riverkeeper

Nutrient Trading can also violate local TMDLs. When a TMDL is developed, that waterbody has a specific load for that pollutant. It is necessary that all the sources that are within that waterbody decrease their load to the prescribed design of the best available technology. Unfortunately, since all the States, that share the responsibility of reducing nutrient loads to the Potomac, are not on the same page when it comes to developing Nutrient TMDLs, the Potomac's various river systems will never have an adequate nutrient accountability framework and reductions will never succeed. The Bay TMDL focuses on the Bay and does not provide protections for individual river systems like a local nutrient TMDLs

would.

Accountability: Regulated vs. Non-regulated

The current push for nutrient trading has been inspired by the trading of air pollution credits. There are two distinct differences though 1) the air sheds are not permanently delineated and are very dynamic, unlike a watershed that is defined by its boundaries and has little variability. 2) The buyer and the seller within the air credit trading program are both regulated by the States or EPA, unlike the current push for nutrient trading credits between unregulated farms and a regulated NPDES permitted discharger. The accountability of the non-regulated farms to continue supplying the same level of credit production cannot be guaranteed. Since waste water treatment structures are basically a permanent fixture and will require an endless supply of credits to remain nutrient neutral, the current unregulated agricultural system cannot be deployed. The credits generated will have no proof that the nutrient uptake is actual and not estimated. There is no accountability system that can guarantee credit production in the future.

Response

Thank you for your comments. Under the Chesapeake Bay TMDL, sources of loadings must meet their allocations and the requirements of all applicable laws and regulations even as they participate in offset or trading transactions. Offset and trading programs must not create violations of local water quality. The TMDL provides for the opportunity for more than one state to coordinate its restoration actions for waterbodies within the Chesapeake Bay watershed. EPA agrees that rigorous oversight, transparency, and accountability are important elements of successful and legitimate offset and trading programs. EPA's Water Quality Trading Policy recommends that accounting methods be adopted that account for the greater uncertainty in estimates of nonpoint source loads and reductions. EPA will review the Bay jurisdictions' progress in implementing and developing offset and trading programs in 2011. With respect to local TMDLs, where they exist, NPDES permitted activities that discharge to the waterbody are required under federal rules to be consistent with the wasteload allocations in the TMDL, and likewise state and locally managed nonpoint sources are also called upon to conform with the local TMDL's load allocations. In the absence of a TMDL, federal rules still govern point source discharges to the subject waterbody and such discharges must comply with effluent limits as stringent as necessary to meet the applicable water quality standards.

Comment ID 0504.1.001.005

Author Name: Elliott James

Organization: Citizens Advisory Committee to the Chesapeake Executive Council

we recognize that a watershed-wide nutrient trading program has the potential to improve the cost effectiveness of meeting the nutrient and sediment reductions. As mentioned above we strongly support third party verification of non-permitted practices as one means to ensure reductions from nonpoint sources are realized. Verification/validation of real nutrient reductions will be critical to a successful trading program and stable market that protects both trading parties. The Chesapeake Bay Program partners should be very open and thoughtful on how to proceed with a nutrient trading program. We recommend there be serious discussions about how a trading program in the watershed can be effective, coordinated regionally and ensure strong elements of accountability and verification.

Response

Thank you for your comment. EPA agrees that verification and validation of nutrient reductions is an important component of a successful and legitimate offset and trading program. EPA believes that third-party verification provides an important option to parties implementing and participating in such programs.

Comment ID 0507.1.001.010

Author Name: Sullivan Sean

Organization: Liberty University and Thomas Road Baptist Church

As discussed more fully in the comments of the Virginia Association of Municipal Wastewater Authorities ("VAMWA"), the Draft TMDL ignores more efficient means of reducing pollutant loads in the James River, such as establishing a nutrient reduction credit trading program to allow pollutant reductions to come from the most economically efficient sources. [FN53] EPA has not explained why the backstop rule does not consider allowing point sources subject to federal wasteload allocations to accomplish those reductions through a federal credit trading program.[FN54] Rather, the agency simply rejected Virginia's WIP and concluded that the Commonwealth's state-based trading program does not satisfy EPA's reasonable assurance criterion.[FN55]

In addition to suggesting that EPA has not considered all relevant factors in developing the Draft TMDL, the agency's treatment of nutrient trading programs also reinforces the dubious nature of EPA's claim of authority to impose the requirement for WIPs or reasonable assurances at all. If Sections 117 and 303(d) contain a broad enough delegation of authority to establish requirements for WIPs and for reasonable assurances, why are those authorities insufficient to authorize a federally created trading program? In essence, EPA has prevented itself from considering the cost of implementing the Draft TMDL by way of an erroneous interpretation of the law. Given that an agency must provide a legally defensible justification for a proposed rule, EPA should withdraw the Draft TMDL for further consideration.[FN56]

[FN53] Liberty hereby incorporates the comments of VAMWA regarding the Draft TMDL by reference to the extent those comments are not inconsistent with its own.

[FN54] See *Motor Vehicle Manufacturers Association v. State Farm Mutual Insurance Co.*, 463 U.S. 29, 48-49 (1983) (explaining agency must justify rejection of alternatives within ambit of applicable law). Agency actions based on erroneous understandings of the law must be rejected.

[FN55] See *id.*

[FN56] See *id.*

Response

Thank you for your comments. In establishing the TMDL, EPA is responsible for ensuring that nutrient and sediment reductions from both point and nonpoint sources in the TMDL are supported by a clear set of functional programs that provide the reasonable assurance the load allocations and wasteload allocations in the TMDL will be achieved. EPA carefully considered the content of the jurisdictions' draft and final Phase I WIPs in its preparation of the draft TMDL for public comment and in establishing the final TMDL for Chesapeake Bay. EPA's proposed reductions to POTW allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance demonstrated in draft Phase I WIPs.

In the final TMDL, the load allocations and wasteload allocations are with some exceptions, consistent with the load allocations and wasteload allocations proposed by the jurisdictions in their final Phase I WIPs. In some cases, the load and wasteload allocations in the TMDL differ from what was contained in the draft TMDL for public comment, the jurisdictions' draft Phase I Watershed Implementation Plans, and/or the jurisdictions' tributary strategies. The degree to which such allocations differ from these earlier documents varies by jurisdiction and sector.

EPA recognizes the success of Virginia's Point Source Trading Program. EPA also supports Virginia's proposed expansion of its Nutrient Credit Exchange and its proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

EPA has considered all relevant factors in developing this TMDL. It is EPA's opinion that CWA Sections 117 and 303(d) contain a broad enough delegation of authority to establish requirements for WIPs and for reasonable assurances as well as those authorities sufficient to authorize a federally created trading program.

Comment ID 0512.1.001.007

Author Name: Lehman Megan

Organization: County of Lycoming, Pennsylvania

Comment #8 - The County recommends that EPA recognize and approve interstate nutrient credit trading as a market-based mechanism to reduce the total cost of compliance and increase the speed and efficiency of reductions. This is a very important tool that can benefit Lycoming County, the Commonwealth of Pennsylvania, and the other Bay-region states. By increasing the marketplace for the trading and purchasing of nutrient credits, benefits will accrue to both non-point source and point source entities. It will expand the opportunities for the selling of nutrient credits from the non-point sources to point sources both inside and outside of Pennsylvania. This will increase the number of available nutrient credits that a point source can purchase as part of their efforts to comply with the Chesapeake Bay Tributary Strategy. It will also provide a cost-effective option to be coupled with infrastructure improvements as appropriate. It will also increase the amount of funding received by the non-point sources for the sale of the credits generated by the BMP. This will result in non-point sources (primarily, agricultural operations) having more available funding to invest in additional BMPs and new technologies, thereby further reducing the pollutants in the Bay.

Response

Thank you for your comment. EPA supports the development and implementation of a means of interstate nutrient credit trading in the Chesapeake Bay watershed. EPA is collaborating with the World Resources Institute (WRI) and its project partners in a project to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed. This project seeks to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay Watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project. EPA remains very interested in this project as it has the potential to greatly facilitate an orderly, accountable, transparent and effective means of accomplishing interstate nutrient trading.

Comment ID 0519.1.001.009

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Flexible Allocations and Permitting

EPA and the Commonwealth of Virginia must provide local governments with the necessary flexibility to implement the WIP. The draft Phase I WIP implies that allocations will next be made at the local government level, but does not address reductions or implementation levels at all. It is not clear how much flexibility that local governments will have in developing or addressing the implementation plans.

While the expansion of Virginia's Chesapeake Bay Nutrient Credit Exchange Program, as proposed in the draft WIP, might provide some degree of flexibility, there are virtually no details provided in the draft. Much more detail must be presented before it can be ascertained as whether or not the program can provide local governments with a viable trading option. As a result of the stormwater, septic and agricultural sectors essentially being set to the E3 levels in the draft WIP, there is concern about the potential availability of nutrient credits to be generated by a single sector, and thus, also being controlled by that single sector.

More and more states are adopting trading programs as a means of achieving water quality improvements. Trading in combination with flexible MS4 permitting may prove to be the indispensable tool to address the economic impacts of a total maximum daily load program through flexible and cost-effective implementation of such things as retrofitting stormwater systems as well taking advantage of natural stormwater management by identifying and adopting green infrastructure. Many of the MS4 permit requirements can be accomplished on a larger scale (e.g. County or Watershed). This concept is supported by the conclusions of the 2008 National Research Council's report entitled *Urban Stormwater Management in the United States*[FN4]. For example under a National Pollutant Discharge Elimination System (NPDES) bubble permit, a local government may find opportunities to trade internally among the other permits that it holds thus providing the flexibility of determining where pollutant reductions can be achieved most cost-effectively. Trading may help alleviate economic impacts previously detailed may also can be used to accelerate environmental gains by rewarding communities for pursuing innovative control solutions.

Similar to the bubble permit option, a "group compliance option" could allow one or more groups of permittees in the

same watershed to work collectively to meet the combined nutrient limits of its member facilities, rather than each facility being subject to its individual limits. Thus, it provides interested dischargers an alternative approach to pursue meeting the nutrient reduction goals of the TMDL and allows dischargers, as a group, the flexibility to develop their own strategy for doing so. Each group could be governed through a group Chesapeake Bay NPDES permit. The group permit would contain allocations for nitrogen, phosphorus and sediment only and would supplement the existing individual NPDES permits of the member local governments. The existing individual permits would remain in full effect, including other effluent limits and monitoring, reporting, and other requirements. The group permitting approach is expected to be similar to that already employed in the Neuse River basin.[FN5]

Drawing on the concept established by the State of New York through its MS4 General Permit it allows for covered entities to form a Regional Stormwater Entity (RSE) to implement stormwater retrofits collectively. [FN6] The covered entities must ensure that discharges of the pollutant of concern to the TMDL water body are reduced through these or an additional change to individual stormwater management plans so that the waste load allocation is met. Each regulated MS4 is responsible for an individual load reduction, which is a fraction of the total required load reduction in the TMDL. If the MS4s form a Regional Stormwater Entity and stormwater retrofits are approached collectively, the State would allow compliance with this condition of the general permit to be achieved on a regional basis. In this case the load reduction requirement for each participating MS4 would be aggregated, to create an RSE load reduction, to allow design and installation of retrofits where they are most feasible, without restricting MS4s to site retrofit projects within their municipal boundaries. Each member of an RSE is in compliance if the aggregate reduction number associated with the retrofit plans is met. If the aggregate number is not met, each of the participating MS4s would be deemed non-compliant until such time as they had met their individual load reduction requirements.

The Northern Virginia Regional Commission staff recommends that these concepts of a flexible MS4 permitting system be incorporated into the final TMDL and WIP documents by the USEPA and the Commonwealth of Virginia.

[FN4] Urban Stormwater Management in the United States, Pre Publication Copy:

http://www.epa.gov/npdes/pubs/nrc_stormwaterreport.pdf

[FN5] <http://portal.ncdenr.org/web/wg/ps/mtu/tmdl/tmdls#Draft>

[FN6] New York State Department of Environmental Conservation, SPDES General Permit for Stormwater Discharges.

http://www.dec.ny.gov/docs/water_pdf/ms4gp2010.pdf

Response

Thank you for your comments and offer of support. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and the proposed additional regulatory drivers that will stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented. Virginia is seeking to expand its program to make offsets available to a wider range of dischargers. EPA supports this program expansion and believes the success of the program expansion, particularly for stormwater and on-site or septic systems, depends on the State's success in creating greater demand for load reductions from these sectors.

EPA is aware that meeting TMDL allocations will involve local governments, which already manage a significant workload. EPA

is working to identify means of providing technical support to local governments to reduce the burden of planning for the TMDL and implementing measures associated with the TMDL.

EPA will take these comments into account in its continued work with Virginia to ensure that the jurisdiction's provides local governments with a viable trading option.

Comment ID 0520.1.001.001

Author Name: Jones Cy

Organization: World Resources Institute

1. A Robust Nutrient Trading Program That Allows Credit Transactions Across Political Boundaries and Hydrological Basins Will be Needed if the TMDL Is to Be Successfully Implemented

Numerous elements of the TMDL and the state Watershed Implementation Plans explicitly require the availability of nutrient offset credits. Chief among them are growth accommodation, enabling backstop provisions, and providing a cost-effective alternative for certain requirements.

Growth accommodation-The states had the choice of having the TMDL set aside specific nitrogen and phosphorus allocation for future growth, or to provide no allocation and rely on a nutrient trading program to provide credits to offset loads from future growth. None of the states (with one partial exception) chose to have a specific allocation set aside for future growth. All chose instead to rely on an offsets program. This is not just a future issue about how to maintain the cap once achieved; the demand for offset credits exists now. Proposed new and expanded discharges have no allocation under the TMDL and WIPs. This demand exists now and will only increase in the face of growth.

Backstop Provisions-The backstop provisions described in Section 8 of the TMDL are of necessity restricted to potential actions that EPA has statutory or regulatory authority to take. Hence they are directed solely at point sources that are, or could be, permitted under the Clean Water Act-municipal and industrial wastewater treatment plants, stormwater dischargers, and animal feeding operations. If WIPs "do not achieve the target allocations or do not provide adequate reasonable assurance" then the backstop action will be to lower the wasteload allocations for point sources to the degree necessary to compensate for the inability to sufficiently reduce nonpoint source loads.

Lowering allocations for existing wastewater treatment plants could have many serious adverse consequences, chief among them additional constraints on growth and development. The economic impact of sewer moratoria could be severe. Acquiring offset credits would be a way to avoid or minimize this impact, hence this backstop measure would result in additional demand for credits. If credit supplies were nonexistent or inadequate, this backstop measure could be very difficult to actually implement, and if implemented, could have severe social and economic impacts.

The proposed backstop measure for stormwater is to require additional retrofits of existing impervious surface by currently permitted stormwater systems (MS4) and issuing NPDES stormwater permits to jurisdictions not currently permitted. It is widely known that the stormwater components of the Bay restoration efforts will be extraordinarily expensive and might not even be affordable. WRI believes that giving stormwater utilities the ability to meet their TMDL

and WIP requirements at least in part through the purchase of nutrient credits will be critical for helping to make the stormwater requirements affordable. EPA should carefully consider the affordability of this backstop measure and recognize that a viable trading program and an adequate supply of credits might be critical to making it implementable.

Lowering Cost and Improving Affordability-The financial achievability of Bay restoration is of great concern to virtually all stakeholders-EPA, the states, regulated dischargers, nonpoint sources, and the public. Any measure that can increase cost effectiveness must be used if at all possible. Water quality trading is one such measure. It is currently being used in state trading programs to reduce costs for wastewater treatment plants to meet wasteload allocations. Greater use could significantly reduce wastewater treatment plant costs, especially in Pennsylvania and West Virginia. Even greater potential for cost savings exists in the stormwater sector. It is clear that a robust and reliable nutrient trading program will be a critical component of successful implementation of the TMDL and restoration of the Bay. It is also clear to WRI that the benefits of nutrient trading can only be fully realized if the trading program is an interstate one, and not merely four separate state trading programs. WRI intends to provide additional analyses over the next few months to help inform EPA's development of the trading program as addressed in Appendix S.

Response

Thank you for your comments. EPA supports the use of expanded nutrient trading programs to help achieve the pollutant load reductions called for in the TMDL. EPA also recognizes the important role that increased regulatory drivers that the TMDL is likely to induce will likely stimulate demand for and expanded trading market. EPA intends to continue to work closely with the jurisdictions to facilitate expansion of orderly, accountable, transparent and effective nutrient credit exchange programs.

EPA is aware that meeting TMDL allocations will involve local governments, which already manage a significant workload. EPA is working to identify means of providing technical support to local governments to reduce the burden of planning for the TMDL and implementing measures associated with the TMDL.

EPA's proposed reductions to POTW allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance demonstrated in WIPs. EPA is responsible for ensuring that nutrient and sediment reductions envisioned in draft WIPs will be achieved. EPA agrees that load and wasteload allocations in the TMDL may in some cases be highly challenging for sources and communities to achieve. Where this is the case, nutrient credit exchange programs are a potential means to achieve the necessary load reductions more efficiently and/or cost-effectively than would otherwise be the case.

In the TMDL, EPA has attempted to identify and promote options for the jurisdictions to accommodate growth while meeting the TMDL allocations. Offsets and trading use free market approaches to allow new and existing dischargers to meet their allocations by paying for pollutant reductions at another location. These approaches have been implemented in several Bay jurisdictions, including Virginia. Virginia is also seeking to expand its program to make offsets available to a wider range of dischargers. EPA supports this program expansion and believes the success of the program expansion, particularly for stormwater and on-site or septic systems, depends on the State's success in creating greater demand for load reductions from these sectors. Creating additional pressure on sectors that have not traditionally felt a demand to decrease their loadings should stimulate market activity in this area.

As you are aware, EPA is collaborating with the World Resources Institute (WRI) in WRI's project to build an online multistate

water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed. This project will build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay Watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project.

Comment ID 0520.1.001.004

Author Name: Jones Cy

Organization: World Resources Institute

5. EPA Should Support and Facilitate Innovative Practices for Removing Nutrients from the Aquatic Environment

Oyster aquaculture is an example of an innovative practice for removing nutrients from surface waters. Other practices for doing this include constructing wetlands and harvesting algae (e.g. Algae Turf Scrubbing). In the long run, this type of "nutrient extraction" may prove to be of critical importance in restoring the Bay. It certainly has great potential. As with oyster aquaculture, the nutrient trading program can create financial incentives for these practices by providing a revenue stream from the sale of nutrient credits. EPA should support research and development of these practices and facilitate their introduction once they are shown to be beneficial and viable. EPA should also facilitate their entry into the nutrient trading market by establishing credit quantification requirements and procedures.

Response

Thank you for your comments and suggestions. EPA is aware of several pilot projects underway or being considered in the Chesapeake Bay Watershed using oyster aquaculture and algae-based technologies. EPA encourages new technologies such as these as part of the solution to the nutrient impairments of the Chesapeake Bay and encourages these projects to participate in the Bay jurisdictions' offset and trading programs.

Comment ID 0520.1.001.005

Author Name: Jones Cy

Organization: World Resources Institute

Comments based on EPA's August 6, 2010 Memo

EPA's August 6 memo entitled "Common Performance Standards for and Elements of Offset and Trading Provisions in the Chesapeake Bay Watershed" listed a number of "discussion questions" that EPA seeks public feedback on through the TMDL commenting process. Following are WRI responses to some of these questions.

Offset Definition

1. At this time, should EPA focus only on new or increased discharges of nitrogen and phosphorus, and sediment or also address existing loadings of nitrogen and phosphorus as well as additional markets/ecosystem services such as sediment, aquatic habitat/wetlands, carbon sequestration, and/or flood storage?

EPA and the Environmental Market Team (EMT) should develop the trading program to accommodate both trading to meet wasteload allocation requirements and trading to offset new and expanding discharges. Trading for both purposes is needed now and delaying the development of program requirements for the first purpose might limit the availability of trading for some dischargers that want to reduce costs by buying credits instead of upgrading their treatment facilities. This would be particularly important for dischargers in basins with limited potential credit supply, dischargers that would benefit from the availability of interstate trading.

WRI does not see any benefit in delaying the development of the "trading to achieve" program. Developing the offsets program will of necessity address virtually all of the critical trading issues and necessary requirements, so there would actually be very little involved in extending the program for all trading purposes.

EPA and the EMT should focus on nutrient trading because of approaching deadlines for developing regulations to implement the TMDLs. The Principals' Staff Committee committed to establish all Bay TMDLs by December 31, 2010. Conceivably, entities could demand credits once the TMDLs and any subsequently revised NPDES permits are issued. The full interstate and interbasin nutrient trading program is needed as soon as possible and should be the first priority. Sediment trading has no precedent in the Bay watershed, and very little nationally. WRI believes that a great deal of work needs to be done to assess the viability and efficacy of sediment trading, work that will take some time to accomplish. This should not delay the development of the nutrient trading program.

EPA and the EMT should also consider other markets as possible. In particular, EPA and the EMT should consider both the hurdles to developing other markets for ecosystem services and the ways in which such markets could interact. In addition, EPA should consider whether to focus carbon sequestration efforts on regulated markets such as the Regional Greenhouse Gas Initiative (RGGI), voluntary markets such as the Chicago Climate Exchange, or both. A hurdle to working with RGGI is the limited opportunities it would provide to farmers in the Chesapeake Bay watershed because only New York, Delaware, and Maryland participate in the program. In all markets, EPA and the EMT should consider the potential for "stacking" credits.

2. Should an offsets/trading program under which nonpoint sources may be required to acquire credits or offsets go forward, given that jurisdictions have the discretion to determine whether and how to subject nonpoint sources to regulatory and administrative requirements?

Yes. If the possibility exists that states may impose such requirements on currently unregulated nonpoint sources, then the trading program should be designed to accommodate this. WRI does not see however, how this would affect the design of the trading program. It would simply create another category of credit purchasers and potentially increase credit demand. The need for special rules for this type of credit purchaser is not readily apparent.

In developing a program that would allow nonpoint sources to acquire credits, EPA does not infringe upon state's rights. States may allow or prohibit nonpoint sources from participating. By developing a program that allows the greatest number of participants possible, EPA simply opens the benefits of trading to all sectors that might benefit from it.

Baselines and Eligibility

5. EPA's current assumption is that the wasteload allocation established by the TMDL is the baseline necessary to achieve water quality standards and offsets are required for new or increased discharges above the baseline. The jurisdictions could set a more stringent baseline. What are some potential bases for setting a more stringent baseline?

Is it possible to ensure that nonpoint sources are included in whatever baseline is defined?

Nonpoint sources that seek to generate credits should be held to the criteria established in EPA's Guide for Evaluation of Phase I Watershed Implementation Plans of April 2, 2010 (Evaluation Guide). Consistency factor number 3 states that "EPA expects each Bay jurisdiction to address how its use of offsets would account for... attainment of the Bay TMDL or local water quality baseline by the generator of the offset" and number 6 adds that EPA will further expect states to demonstrate "...whether, as appropriate, the offset will offer a net improvement to the waterbody." Such requirements clearly make states prove that their nonpoint source baseline requirements meet the credit-generating entity's share of the applicable sector's load allocation.

6. Can an offset/trade generated be based on modeling? What would happen if subsequent monitoring shows less than the anticipated reduction? Would additional reductions be required by the generator, the user, or both?

Yes, for those BMPs and agricultural practices for which the Bay Program has established peer-reviewed long-term average efficiencies that have been incorporated into the watershed model. Credit generation methodologies based on BMPs or practices that do not have peer-reviewed established efficiencies should be addressed on a case-by-case basis by the regulatory agency charged with certifying the credits. Monitoring and/or uncertainty ratios should be required as necessary.

7. Should sources in impaired segments be eligible to purchase credits or offsets produced in other parts of the Chesapeake Bay watershed as long as such offsets or trades would not result in exceedances of water quality standards in the purchaser's impaired segment or segments downstream?

This question should more clearly define what is meant by "impaired segment." For the purpose of responding, WRI will assume that it refers to a non-tidal stream segment in the Bay watershed that is listed on the 303(d) list as impaired by nutrients. The answer to the question would depend on whether or not the discharger is an existing source or a new or expanding source and whether or not a TMDL has been implemented for the impaired segment and if so, whether the wasteload allocation for the point source is higher or lower than its Bay-related wasteload allocation.

Three cases can be defined:

Case 1 - The point source is an existing discharger and has a wasteload allocation under the Bay TMDL. A TMDL has been implemented for the local impairment. Case 1 can be divided into two subcases:

- Case 1a - WLA for local TMDL is lower than Bay TMDL WLA
- Case 1b - WLA for local TMDL is higher than Bay TMDL WLA

Case 2 - The point source is an existing discharger and has a wasteload allocation under the Bay TMDL. A TMDL has not yet been implemented for the local impairment

Case 3 - The point source is a new or expanding discharge that has no wasteload allocation under the Bay TMDL

For Case 1, the discharger should be allowed to purchase credits. The number of credits that could come from outside the watershed would depend on the subcase. The following excerpts from a WRI presentation graphically presents Case 1 examples dealing with phosphorus discharge and illustrate the constraints on the sources of credits that WRI recommends for each subcase.

In Case 2, the point source is an existing discharger and has a wasteload allocation under the Bay TMDL. A TMDL has not yet been implemented for the local impairment, hence the discharger does not yet know what its local wasteload allocation will be. Case 2 is directly addressed by EPA 2003 Trading Policy which states "EPA supports pre-TMDL trading in impaired waters to achieve progress towards or the attainment of water quality standards." The following graph illustrates the Case 2 situation and WRI's recommended constraints on the source of credits.

The point source is not likely to purchase credits to meet the local WLA because it does not yet know the local WLA. Purchasing credits to meet the Bay WLA makes progress toward meeting the local water quality goals, hence is consistent with the trading policy.

Case 3 involves a new or expanding discharge that has no wasteload allocation under the Bay TMDL. A TMDL has not yet been implemented for the local impairment. WRI recommends that credit purchase be allowed but that all credits must come from within the impaired watershed and upstream of the point source. To satisfy the trading policy requirement for "net progress" the point source would have to do something more than simply offset its discharges. Adding a retirement ratio to the trade would be one way of fulfilling this requirement.

8. To what extent can "programmatic offsets" be used as an option for categories of nonpoint source load allocations instead of the site-by-site offset or trading approach? How should the minimum expectations for accounting for programmatic offsets or trades for the accountability and tracking system be defined? For example, should a jurisdiction's nonpoint source sediment control program have allocations assigned to it? When an allocation is estimated to be exhausted, should the jurisdiction begin requiring offsets or trades?

WRI is skeptical of programmatic offsets. If they are allowed, trading program rules must be in place to ensure that the programs being credited actually produce quantifiable and verifiable delivered load reductions.

9. Will non-point sources be required to implement a minimum level of "best management practices" to be eligible to sell credits? If so, would this result in nonpoint sources exhausting their lowest cost options for reducing emissions, leaving only more expensive methods for use in generating credits? If credit prices do rise because only more expensive credit generation methods are available to nonpoint sources, how responsive will credit buyers be to the price increases?

Nonpoint sources should be required to reduce their share of their sector's load allocation before implementing practices to generate credits. Existing nutrient trading programs in the Bay watershed currently state whether nonpoint sources face performance standard or practice-based baseline requirements. While an interstate and interbasin nutrient trading program could result in changes to how states establish baseline requirements, such requirements are needed

and should be generally consistent throughout the watershed in the level of performance they produce.

If the baseline is practice-based, farmers will likely implement the required practice(s) and then implement additional practices to generate credits. If the baseline is a performance-standard, farmers could implement whatever practices they choose as long as they meet their share of the agriculture sector's load allocation. Farmers would likely implement low-cost practices first. However, their choice of which practices to implement will be affected by available cost-share funding. If an expensive practice becomes affordable because it can be subsidized by cost-share funds, the farmer could be more-inclined to use it to meet the performance standard.

Credit pricing is difficult to predict at this point. Price discovery will be affected by many factors, chief among them supply and demand. Some potential credit purchasers will be seeking to avoid very high costs (e.g. MS4s). Credit buyers are unlikely to be affected by slight increases in credit price. Poor trading program design itself could adversely affect pricing.

Credit Calculation Metrics

10. Under what circumstances should/will offset loads or credits generated be required to be in an amount greater than the new or increased delivered load or credit used?

WRI assumes that the question refers to requiring retirement ratios, net improvement ratios, or other types of ratios unrelated to delivered loads and equivalent water quality impacts. WRI does not object to such ratios being applied to trades as a sort of "water quality tax" but cautions that if they become too large, they could reduce the viability of trading and constrain the market. Given the critical role of trading in making the TMDL implementable, excessive ratios could actually be harmful to Bay restoration efforts.

Another type of ratio deserves mention. Reserve ratios put credit into a credit insurance pool. The insurance pool is a critical component in managing point-source risk. Since Clean Water Act legal liability cannot be transferred from the permitted credit purchaser to a nonpoint source supplier, point sources are very concerned about the possibility of credit defaults by unregulated suppliers. If credits could be purchased from a reliable insurance pool in the event of a default, point sources will be much less concerned about this risk. WRI supports the creation of the insurance pool and the use of a reserve ratio to supply it with credits.

11. Is it appropriate to allow an offset or credit for load reductions already achieved (e.g., can credits be for practices implemented within a specific period)?

This is a difficult question with many implications. A complete discussion is not possible within the context of TMDL comments. The only answer WRI could offer now is possibly. WRI urges EPA to seek input on this question, and others, in an ongoing process to develop trading program policy.

Certification of Credit and Offset Validity

12. What is the correct approach to credit or offset validity certification? Should certifications be done annually? Can this be accomplished by third parties?

EPA should be consistent with terminology used by the existing state trading programs. Credit certification is the process by which an entity wishing to sell credits submits an application to the appropriate regulatory agency. Verification is an annual inspection to verify that the credits are real and are being generated by load reductions as proposed in the application. The application should include, among other things, a description of the proposed quantity of credits to be generated, where and how they will be generated, the duration of the credit generation, and how applicable baseline requirements will be met. The regulatory agency should be a thorough review of the proposal to ensure that the proposal is valid in all respects. It can then certify the credits and they can be entered in the public trading registry. Once sold, an annual verification of the actual credit generation is required, generally through an onsite inspection. There is no a priori reason to preclude the possibility of third-party inspections.

Enforceability

13. Under the CWA and EPA's trading policy, where an NPDES-permitted discharger is the purchaser of a credit or offset, but the credit or offset producer does not perform, the permittee remains obligated to meet the permit's water quality-based effluent limit and subject to potential enforcement for failure to do so. In addition to this enforcement safeguard, is it important to ensure there is a civilly enforceable agreement between buyer and seller? Discussion Draft - 8/6/10 8 14. Should the consequences of significant noncompliance by permittees include restriction from trading for a certain amount of time? What impact would this have on trades or offsets already in place?

Credit transactions should be based on a civilly enforceable agreement between buyer and seller. An interstate and interbasin nutrient trading program could stipulate minimum requirements for such contracts, including:

Purpose of the contract;

Quantities of credits exchanged;

Prices of credits exchanged;

Duration of contract; Obligations of the seller;

--Agreement to undertake specified actions to reduce pollutant loads

--Agreement to properly maintain BMPs or other specified facilities

--Agreement to allow regular inspections by buyer and/or third parties

--Compliance with all federal, state, and local requirements

Obligations of the buyer; and

Provisions for violation.

In some trading programs, the reliance on private contracts has been augmented with regulatory sanctions against sellers of non-existent credits. For example, Michigan's trading rules stipulate that credit generators are subject to three times the amount of compensatory damages if they sell bad or insufficient credits.

WRI advises against provisions that would make state or federal agencies parties to private contracts, or give them enforcement authority over such contracts. Such provisions could greatly reduce the number of entities willing to supply credits. Existing contract law is sufficient to protect all parties

Accountability and Tracking System

15. An assumption herein is that offset or credit users are NPDES dischargers and that all offsets or trades must be

documented in the NPDES permits. Must credit or offset generators who are NPDES dischargers also have offsets or trades recorded in their NPDES permit? The Trading Toolkit states that "credit sellers' permits will include both the effluent limit that would apply without the trade and the effluent limit that applies with the trade."

WRI believes that the provisions included in the seller's NPDES permit should depend on the nature of the proposed trade. Two cases come to mind:

The trade could involve the permanent sale of WLA to another permit holder. In this case, the WLAs in both permits should be adjusted accordingly. "With and without trade" effluent limits would not be needed in the seller's permit, only the reduced WLA and possibly a statement in the fact sheet about why the WLA was reduced and by how much.

The trade involves the sale of a certain number of credits per year for X years. In this case, the seller's permit should reflect both trade and no-trade limits and the maximum number of credits that may be sold in a given year, if applicable.

16. Nonpoint source participation is important to maximize the success of offsets and trades, yet integrity of transactions involving nonpoint sources will be challenging, particularly in cases of nonpoint source-only transactions. Are there additional elements or standards that should be considered for ensuring the integrity of such transactions?

There are many additional elements and standards that must be included in a trading program involving nonpoint sources. As with Question 11, a complete discussion is not possible within the context of TMDL comments. WRI urges EPA to seek input on this question in an ongoing process to develop trading program policy.

Response

Thank you for your comments. EPA carefully considered these comments as it finalized the Chesapeake Bay TMDL and EPA intends to continue to work with the Bay jurisdictions to facilitate development and implementation of orderly, accountable, transparent and effective offset and trading programs. EPA will ensure that the EMT receives a copy of WRI's comments and we look forward to a continued collaboration with WRI.

Comment ID 0530.1.001.001

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

Issue #1: The TMDL must allow for innovative options to meet pollution reduction requirements, and EPA must facilitate, not hinder, existing cooperative efforts already underway in states like Pennsylvania.

Pennsylvania's home builders have always been stewards of the Chesapeake Bay and its ecosystem. Our activities across the watershed have been regulated at the federal, state, and local levels for many, many years, and those regulations have become more stringent over time. Because of the long-term emphasis placed on protecting environmental quality, most new developments in the Bay watershed must already install state-of-the-art stormwater

management facilities, use low impact development practices, and follow sustainable design principles to ensure that the projects minimize pollution and other adverse environmental impacts.

In many cases, Pennsylvania builders have found that state and local government practices, policies and regulations represent impediments to designing and completing environmentally sensitive development. Many current codes and ordinances include mandates that are inconsistent with that objective. For example, requiring 40-foot residential streets or sidewalks on both sides of a roadway can significantly increase the amount of imperviousness and the associated stormwater discharging from a site. PBA has supported the development of a document by the Pennsylvania Housing Research Center, titled Pennsylvania Standards for Residential Site Development, which contains possible solutions for issues such as the preceding. It can be accessed at <http://www.engr.psu.edu/phrc/Land%20Development%20Standards.htm>.

At the same time, the occasion of the Bay TMDL would seem to be an auspicious opportunity to develop and promote innovative pollution reduction techniques that achieve the greatest possible environmental benefit at the least possible cost, with particular emphasis on programs that allow for pollutant trading and offsetting. Without viable such programs, the efforts of EPA, the Bay states, local governments, and private sector stakeholders to restore the Bay to health—no matter how well-intentioned—will ultimately fail because no other mechanism can do as much to channel scarce financial resources to the lowest-cost methods of pollution reduction. The composition of the pollutant load in states such as Pennsylvania, in which agriculture is by far the dominant source of nitrogen, phosphorus and sediment to the Bay, as well as the far lower documented relative cost of pollutant removal achieved by agricultural best management practices (BMPs), argues powerfully for trading and offsetting as essential tools for the ultimate success of the Bay restoration efforts.

Given these realities, EPA must play a constructive role and allow and facilitate the use of innovative practices and principles, especially those related to trading and offsetting programs, which reduce environmental stresses on the watershed. In order to achieve the Bay cleanup in the most cost-effective manner possible, given the need to continue to provide jobs and opportunities for the people who will call the Bay watershed home today and in the future, it will be necessary to further identify and remove the roadblocks that exist to pollution trading and offsetting.

In particular, the stormwater pollutant reductions that will be mandated under the TMDL from new development, redevelopment, and the retrofit of existing impervious pavements in cities and towns will not be achievable without trading and adequate off-site mitigation alternatives. This is due to both the technical challenges posed by the urban setting and the cost of retrofits. Likewise, the future economic growth communities in the watershed will depend on the ability for new growth to purchase offset credits prior to construction. Further, without trading, agricultural entities, for the most part, will be unable to make sufficient pollutant reductions necessary to restore the Bay due to the sheer costs they may be asked to bear. Without a major contribution from agriculture that is proportional to agriculture's contribution to the impairment of the Bay, the Bay restoration goals may be unattainable.

PBA has created and championed a proposal to institute a stormwater BMP offsetting program for use by builders, municipal governments, and agricultural operations, and has discussed the details of the proposed program extensively with EPA officials. PBA is also currently involved in negotiations with the Pennsylvania DEP and other affected stakeholders regarding the structure of such an offsetting program. PBA's proposal is attached as an appendix to these comments. Finally, PBA has been intimately involved in the development of the existing DEP nutrient credit trading program, and continues to provide input as to how the program can be improved.

Response

Thank you for your comments. EPA commends PBA's involvement in the development of Pennsylvania's nutrient credit trading program and its continued input on improving the program. EPA supports the expansion of Pennsylvania's program to include stormwater and will continue to work closely with Pennsylvania to ensure the success and legitimacy of its program.

Comment ID 0530.1.001.004

Author Name: Gulibon Grant

Organization: Pennsylvania Builders Association

Given these realities, PBA urges EPA to work with state and local governments and private sector stakeholders to support existing innovative pollution reduction approaches, such as the Pennsylvania nutrient credit trading program and the PBA stormwater offsetting proposal, rather than impose draconian requirements that will impede the development and refinement of such efforts. Also, though EPA has endorsed the concept of water quality credit trading and has an active technical committee, the Water Quality Trading Forum, examining trading, nothing visible has been done to put pen to paper to actually move towards developing a robust, interstate water quality credit trading program. This will prove extremely problematic as the TMDL is implemented.

A viable and fair interstate trading program must be in place as soon as possible, as a large, broad-based trading program supported by EPA would allow NPDES permit holders to share in the low-cost agricultural BMPs that will be necessary to fund if the housing industry is to survive. To further assist in the development of water quality trading, the Chesapeake Bay Program should be working with the EPA's HQ permits section to provide appropriate trading language for incorporation into NPDES permits, identifying the elements necessary for an acceptable trading program in the Chesapeake Bay, and working to find an entity capable of overseeing the generation and selling of water quality credits. Home builders normally have short-duration permits of 9 months to a year, adding another complication to their participation in trading. However, without trading, there will certainly be further job losses in the housing industry during the beginning of the restoration program. PBA also strongly encourages the Chesapeake Bay Program Office to consider sediment trading as well as nutrient trading for the same reasons explained in the above paragraphs.

Response

Thank you for your comments. EPA is aware that the World Resources Institute (WRI) is currently leading a collaboration to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed, and EPA remains very interested in this project. The project is intended to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project. EPA also supports the expansion of existing jurisdictional offset and trading programs to incorporate additional sources of loadings and to provide innovative and flexible approaches for meeting TMDL allocations.

Comment ID 0550.1.001.002

Author Name: Pritzlaff Richard

Organization: Biophilia Foundation

My comments are specific to Section 10 "TMDL Implementation and Adaptive Management", sections 10.1 through 10.3, and are especially responsive to the Draft Appendix S "Offsetting New or Increased Loadings of Nitrogen, Phosphorus and Sediment to the Chesapeake Bay Watershed".

The Biophilia Foundation has extensive experience generating measurable nutrient credits, with wildlife habitat co-benefits from our on farm project work. We have developed both a qualitative nutrient credit protocol and a quantitative standard assessed in situ post implementation by a third party using the Chesapeake Bay Watershed Model. These protocols and descriptions can be found as attachment A. [Comment Letter contains additional information in the form of an attachment. See comment letter 0550.5]

Biophilia Foundation currently has credits listed for presale online through Mission Markets Earth (www.missionmarkets.com). Although these credits are available for sale on a voluntary basis, nonetheless they represent the most credible, efficient, and direct philanthropic investment in Chesapeake Bay restoration currently available. It is precisely for these reasons that a robust, efficient, credible, and transparent regulatory marketplace must be created in the Chesapeake Bay Watershed. There is simply no other mechanism that can attract private capital and create private/public partnerships across economic and political interest boundaries sufficient to clean the waters of Chesapeake Bay.

I respectfully point out that as currently contemplated by most trading theoreticians, and as currently described in the draft document, trading programs will be very difficult to create, as the market will be slow to develop given the requirements of nonpoint source credit generators to first reach "Baseline". Additionally, waste water point sources have years of capacity to accommodate growth before they will have the need to purchase a few credits in only a few watersheds. Given these and other disincentives to market development (the most egregious example being Maryland Department of Agriculture's (MDA) insistence that MDA be allowed to determine practice efficacy, monitor practices internally, and restrict credit generation eligibility to no more than 15% of a farm's total acreage for conversion to the most efficient, measurable, and valuable BMP 's, those being wetland and vegetated buffer restoration) it is very possible that trading mechanisms will not contribute to achieving TMDL and WQS goals until after 2017, and even then only marginally.

This would be tragic, as trading mechanisms have tremendous potential to attract private capital, and provide an economically sound model around which private and public interests can form partnerships to achieve TMDL and WQS goals. There needs to be a true "Game Changing" creation of robust, quantifiable and accountable credit trading markets that bring substantial private funding and stakeholder participation to bear; in other words, there first needs to be an economically viable public/private partnership across political and private interest boundaries to first achieve TMDL WQS, and then achieve continued improvement, not the other way around as currently contemplated.

To better illustrate my vision and recommendations, as I have tried to articulate through my track changes and comments to the proposed TMDL sections, I offer the following scenario for consideration, based on the model and

success BF has had as described in attachment A. [Comment Letter contains additional information in the form of an attachment. See comment letter 0550.5] The track changes and comments that follow in the draft document are based upon implementing this scenario. [Comment Letter contains additional information in the form of attachments. See comment letters 0550.2 and 0550.3]

Response

Thank you for your insightful comments and recommendations. Your comments present some interesting ideas. EPA considered these as it finalized the TMDL and more importantly will take these concepts into consideration as it works with the states and stakeholders ensure trading programs are expanded in a manner that is orderly, accountable, transparent and effective. EPA agrees that it will take time for states to develop and expand nutrient trading programs and EPA intends to work closely with the states and stakeholders in an orderly transition toward expanded programs.

Comment ID 0552.1.001.003

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

We appreciate and support Virginia's inclusion of an expanded trading program as a local implementation option. Virginia has a nationally recognized point-point trading program that currently includes domestic and industrial wastewater treatment plants. We believe that expansion of Virginia's trading program is one way to provide flexibility to help make attainment more feasible.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange and its proposed additional regulatory drivers necessary to stimulate demand for an expanded trading market. EPA has worked closely with Virginia to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0571.1.001.021

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

c. Water Quality Trading and Other Flexibility and Cost-Effectiveness Provisions Are Critical to the TMDL's Success.

The stormwater pollutant reductions that will be mandated under the TMDL for new development, redevelopment, and

the retrofit of existing impervious pavements in cities and towns will not be achievable without a robust trading program and adequate off-site mitigation alternatives. This is due to both the technical challenges posed by the urban setting and the cost of retrofits. Likewise, communities that wish to add jobs and grow will depend on the existence of new growth to purchase offset credits prior to construction. Further, without trading, agricultural entities, for the most part, will be unable to make sufficient pollutant reductions necessary to restore the Bay due to the sheer costs they will be asked to bear. Without a major contribution from agriculture that is proportional to agriculture's contribution to the impairment of the Bay, the Bay restoration goals will be unattainable.

Though EPA has endorsed the concept of water quality credit trading and has an active technical committee, the Water Quality Trading Forum, that examines the concept, nothing visible has been done to put pen to paper to actually move towards developing a robust, interstate water quality credit trading program made necessary by the proposed TMDL. This will prove extremely problematic as the program is implemented. Maryland, for example, has not allocated any loadings for future growth in its WIP and expects that, beginning next year, all future construction will be offset through the purchase of water quality credits. The state, however, has no functioning program for trading between point sources and nonpoint sources or for trading between nonpoint sources. Likewise, EPA has itself not proposed a Chesapeake Bay-scale trading program.

A viable and fair trading program must be in place as soon as possible. NAHB submits that EPA is in an ideal place to do much more to help states bring this about. The agency is the only entity that has had full knowledge of the necessity for a large, broad-based trading program that would allow NPDES permit-holders to purchase credits from the low-cost agricultural BMPs that will be necessary to fund if the construction industry is to survive in the Bay watershed. To date, the agency has done nothing but publish papers on the many provisions that others must meet to put together a trading program. To further assist in the development of water quality trading, the Chesapeake Bay Program should be working with the EPA's HQ permits section to provide appropriate trading language for incorporation into NPDES permits, identifying the elements necessary for an acceptable trading program, and working to find an entity capable of overseeing the generation and selling of water quality credits. Home builders normally have short-duration permits of nine months to a year, adding another complication to their participation. However, without trading, there will certainly be further job losses in the housing industry during the beginning of the restoration program.

NAHB can find no language in the proposal that indicates when the purchase of offset credits comes into effect for new dischargers. While the TMDL is to be "finalized" at the end of 2010, does EPA really intend that offsets for new dischargers must take place for new construction permits as of Jan. 1, 2011? How are the pollutant loadings from construction projects to be determined? What are the loadings that EPA expects to result from the construction of a new home, and what data has led EPA to its estimate of pollutant loadings from home building?

NAHB has several outstanding concerns regarding the proposed use of water quality trading in the Chesapeake Bay watershed:

--We fear that the state trading programs may be reluctant to sell credits to private businesses to allow the state to retain a supply of credits to offset the new discharges from road building, construction activities, or other operations.

--The vast majority of home builders have NPDES permits that are required for nine months to a year, the time needed to build a single home. Their businesses may be disadvantaged in trading programs which are designed for use with industrial or MS4 permits, which normally span at least five years.

--It strains belief to think that every new NPDES discharger in the entire 64,000-square-mile watershed will be able to acquire the credits that they need to do business in 2011 when no state has anything approaching such a program now. The potential economic consequences of this requirement could be devastating to the region's economy. Without readily available, affordable, and adequate water quality trading options for businesses in the watershed, EPA must delay the effective date of the TMDL.

EPA should also consider the developing Ohio River Basin Trading Project as a possible model for trading in the Chesapeake Bay watershed.[FN 39] The Ohio River Basin project trades both nitrogen and phosphorus and should at least provide "lessons learned" for those working to bring trading to the Bay. We also strongly encourage the Chesapeake Bay Program Office to consider sediment trading as well as nutrient trading for the same.

[FN 39] See <http://mydocs.epri.com/docs/public/000000000001019305.pdf>.

Response

Thank you for your comments. EPA took these into consideration as it finalized the TMDL and continues to work with the Bay jurisdictions to develop and implement successful and legitimate offset and trading programs. EPA is aware that the World Resources Institute (WRI) is currently leading a collaboration to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed, and EPA remains very interested in this project. The project is intended to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project. EPA also supports the expansion of existing jurisdictional offset and trading programs to incorporate additional sources of loadings and to provide innovative and flexible approaches for meeting TMDL allocations. EPA is working with the relevant permitting authorities in the watershed to determine effective and appropriate methods for acknowledging offsets and trading in NPDES permits.

Comment ID 0583.001.005

Author Name: Campaign Mass

Organization: Virginia League of Conservation Voters

Finally, the plan fails to ensure the proposed pollution trading programs are accompanied by specific requirements and program details that don't just move pollution around, but actually remove it from our water.

Response

Thank you for your comment. EPA is working with the Chesapeake Bay jurisdictions to ensure the development and implementation of orderly, accountable, transparent and effective offset and trading programs.

Comment ID 0588.1.001.003

Author Name: Merrifield Ed

Organization: Potomac Riverkeeper, Shenandoah Riverkeeper

Pollution Trading

We are compelled to again point out to EPA the problems with trading pollution. The many process and administrative issues that have been documented with nutrient trading, pale in comparison to the simple fact that trading pollution is a violation in letter and spirit of the Clean Water Act. It is not only illegal but bad public policy and will not result in a Clean and Healthy Bay.

Response

Thank you for your comment. EPA disagrees that offset and trading programs violate the Clean Water Act. EPA does share your concern that offset and nutrient credit trading programs not cause water quality or other environmental problems in the Bay watershed. This type of unintended consequence is directly addressed by the common elements of offset and trading programs in the draft and final TMDL as well as EPA's existing water quality trading policy and trading toolkit for NPDES permit writers (documents cited in the TMDL Appendix). It is EPA's view that if an offset or trade would result in local exceedances of water quality standards, that such a trade could not be authorized under EPA regulations. EPA will continue to work closely with the Bay jurisdictions to ensure that such unintended consequences are avoided.

Comment ID 0590.1.001.014

Author Name: Chavez Jennifer

Organization: Earthjustice et al.

12. Trading: The above analysis of the illegality and arbitrariness of EPA's offset proposal applies with even greater force to EPA's suggestion (at 10-3 to -4) that inter-source (and inter-segment) trading should be allowed. There is no legal authority for such trading, and allowing it would undermine the enforceability and integrity of the entire Bay TMDL. As with offsets, a trading scheme raises the specter of nonpoint sources trading credits generated by unenforceable and unverifiable pollution cuts to allow pollution increases that otherwise would be forbidden (at risk of enforcement action by EPA or citizens). If the past decades of taught us anything about cleaning up the Bay, it is that we need stronger and more enforceable pollution limits, not weaker limits that can be circumvented and undermined by trading shell games. Furthermore, as with offsets, EPA cites no reasoned basis that either the agency or the states have the resources to adequately track and police trades involving potentially hundreds of sources throughout all of the Bay states.

Response

EPA intends for “independent oversight” in section 10.1.1 of the draft TMDL to mean third-party oversight of jurisdictional offset programs, including by firms under contract to the jurisdictions. In such cases, contracts ideally would specify the authority of the third party to arrive at conclusions without being influenced by the jurisdiction.

EPA has compiled scientific evidence which is referenced in the TMDL report's section 10-3 to -4 that provided the justification for allowing inter-source (and inter segment) trading. EPA has the legal authority to allow this as well as enforce when this trading fails to meet the trade requirements.

EPA intends for “public oversight” in section 10.1.2 of the draft TMDL to mean that jurisdictions should provide information about their trading and offset programs with detail and explanation sufficient for members of the public understand the programs, including how individual trading and offset agreements are structured. Jurisdictions should also provide the public with opportunities to comment on these programs and individual agreements under such programs.

EPA cannot make predictions about whether its budget will support specific activities in the future. EPA has made protection and restoration of the Chesapeake Bay a priority, and successful trading and offset programs are an essential component of achieving the goals of the TMDL.

Comment ID 0591.1.001.013

Author Name: Shields M.

Organization:

Finally, I like to add that any nutrient trading program will harm the bay by allowing some polluters to pollute more.

Response

Thank you for your comment. EPA believes offset and trading programs are important tools that have the potential to greatly assist sectors in meeting their allocations under the Chesapeake Bay TMDL. EPA’s expectation is that all participants in such programs will continue to be responsible for complying with all applicable laws and regulations.

Comment ID 0612.1.001.006

Author Name: Willis James

Organization: Titan America LLC

Titan America supports delaying adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--Agricultural BMPs could be funded through a nutrient trading fund which accepts payments from urban/suburban land

disturbing projects.

Response

Thank you for your comment. EPA does not intend to delay implementation of the Chesapeake Bay TMDL. EPA will continue to work with the Bay jurisdictions to explore approaches to funding projects that reduce loadings to the Chesapeake Bay and its tributaries.

Comment ID 0613-cp.001.001

Author Name: Hartley David

Organization: Eastern Panhandle Home Builders Association

The Chesapeake Bay TMDL will require many changes affecting our members in various aspects. Waste water treatment plants process effluent from houses we build and our members manage construction stormwater as well as construct storm water management facilities.

The creation and implementation of an interstate nutrient credit trading program would be essential for developers to meet the TMDL/West Virginia WIP. This is particularly true in our area because we are a relatively small part of the Chesapeake Bay Watershed and West Virginia's nutrient credit trading program may be not developed to a point where credits can be verified and sold. Without the interstate credit trading program, development would essentially stop here and the contributions from development to the TMDL would not happen.

There we urge EPA to fast track an interstate nutrient credit trading program for implementation before the current Constriction stormwater Permit expires in West Virginia so that options will be available can both project the Bay and make sense for business owners.

Response

Thank you for your comment. EPA is aware that the World Resources Institute (WRI) is currently leading a collaboration to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed, and EPA remains very interested in this project. The project is intended to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project. EPA also supports the expansion of existing jurisdictional offset and trading programs to incorporate additional sources of loadings and to provide innovative and flexible approaches for meeting TMDL allocations.

Comment ID 0614.1.001.009

Author Name: Street William

Organization: James River Association (JRA)

The Draft WIP Relies Too Heavily on Expanded Nutrient Trading - The draft Virginia WIP calls for a greatly expanded nutrient trading program. Currently, Virginia's nutrient trading program allows for trading to comply with wastewater discharge permits and stormwater permits for new development and is generally targeted to provide flexibility in reaching the last amount of pollution reductions which can be the most expensive. The Virginia Draft WIP would expand this to include all major pollution sources and proposes to utilize this mechanism to drive large levels of pollution reductions. The scope of the proposed pollution trading program extends well beyond any such program implemented to date in the nation. However, the plan does not provide sufficient detail on how the program would be established and whether there would be adequate supply and demand to create a market of the size and scope envisioned by the draft WIP.

As long as local water quality is sufficiently protected, JRA supports the development and use of a nutrient trading program to increase cost efficiencies of meeting the Chesapeake Bay allocations. We suggest that sector allocations be set at attainable levels and that the trading program be available as an option for appropriate sectors to reduce costs. Under the Draft WIP, some sectors would have no option but to trade in order to meet their allocation, which would distort the market and lead to less cost efficiencies.

Response

Thank you for your comments. EPA supports Virginia's proposed expansion of its Nutrient Credit Exchange together with the proposed regulatory drivers that are necessary to stimulate demand in nutrient credit markets. EPA has worked closely with Virginia and will continue to do so to ensure that if the proposed expansion of the exchange program is delayed or unsuccessful in meeting the state's TMDL allocations, contingency plans are in place and able to be implemented.

Comment ID 0681.1.001.013

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

The Commonwealth's existing Chesapeake Bay Nutrient Credit Exchange program allows trading among wastewater treatment facilities located within the same river basin, with one minor exception. Dischargers on VA's Eastern Shore may secure credits from plants located in the Shenandoah-Potomac and Rappahannock basins. The Bay TMDL is structured with 39 Virginia segment-sheds assigned separate TMDL equations for nitrogen and phosphorus. EPA's draft TMDL document does not explicitly acknowledge that dischargers within the same river basin, but are located within different segment-sheds in that river basin are allowed to exchange nutrients. Although the current TMDL wording expresses EPA's general support for trading, there should be no possibility that EPA or other stakeholders could misinterpret such general language as not allowing trading across different segment-sheds within the same river basin.

Recommendation: The final TMDL needs to explicitly acknowledge EPA's support for nutrient trading among Virginia wastewater dischargers located in different segment-sheds, but within the same river basin, with the one exception for the VA Eastern Shore noted above.

Response

Thank you for your comments. EPA supports Virginia's Nutrient Credit Exchange and its proposed expansion, including the proposed regulatory drivers that are necessary to stimulate nutrient credit markets. EPA interprets the language of the draft and final TMDL with respect to nutrient offsets and trades to support Virginia's nutrient trading program which allows nutrient trading among Virginia wastewater dischargers located in different segment-sheds, but within the same river basin, with the one exception as determined by Virginia for the Virginia Eastern Shore.

Comment ID 0689.1.001.025

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

36. It is clear that nutrient credit trading will be severely impacted by the delivery ratio issue discussed earlier in these comments. All trades, including those that have taken place, may be suspect if delivery ratios change during the trading process. The Bay TMDL should also address and delineate guidelines for both interstate and intrastate trading.

37. Does EPA support Pennsylvania's trading program as currently established and as set forth in Pennsylvania's draft W1P?

38. EPA's "backstop allocation" approach will dramatically hinder Pennsylvania's Nutrient Trading program, essentially eliminating all point sources as sellers of credits.

Response

Thank you for your question. The possibility exists that adjustments to delivery ratios, edge of segment factors, and best management efficiencies may be needed as the Chesapeake Bay Watershed Model is revised. Such changes may impact nutrient credit generation and purchases under the existing offset and trading programs, but EPA is committed to minimizing such impacts on existing offset and nutrient credit transactions to the extent possible and appropriate. EPA will continue to work with Pennsylvania to ensure that its trading program meets EPA's expectations, including by reviewing the jurisdiction's program in detail in 2011.

In establishing the TMDL, EPA is responsible for ensuring that nutrient and sediment reductions from both point and nonpoint sources in the TMDL are supported by a clear set of functional programs that provide the reasonable assurance the load allocations and wasteload allocations in the TMDL will be achieved. EPA carefully considered the content of the jurisdictions' draft and final

Phase I WIPs in its preparation of the draft TMDL for public comment and in establishing the final TMDL for Chesapeake Bay. EPA's proposed reductions to POTW allocations in the draft TMDL were backstops resulting from a lack of reasonable assurance demonstrated in draft Phase I WIPs.

In the final TMDL, the load allocations and wasteload allocations are with some exceptions, consistent with the load allocations and wasteload allocations proposed by the jurisdictions in their final Phase I WIPs. In some cases, the load and wasteload allocations in the TMDL differ from what was contained in the draft TMDL for public comment, the jurisdictions' draft Phase I Watershed Implementation Plans, and/or the the jurisdictions' tributary strategies. The degree to which such allocations differ from these earlier documents varies by jurisdiction and sector.

EPA recognizes that more restrictive WLAs on a POTW may affect that source's ability to generate nutrient credits. EPA has worked closely with Pennsylvania in the development of its trading program. With the finalization of the Chesapeake Bay TMDL, EPA intends to continue to work with the Commonwealth to help ensure that Pennsylvania trading program is successful in meeting the state's TMDL allocations.

EPA is collaborating with the World Resources Institute (WRI) and WRI's project partners to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed. This project seeks to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project.

Comment ID 0695.1.001.001

Author Name: Helfrich Michael

Organization: Lower Susquehanna Riverkeeper

The Lower Susquehanna Riverkeeper, representing the members of Stewards of the Lower Susquehanna, has signed on to additional comments regarding the Pennsylvania WIP submitted by the York County, PA TMDL workgroup to DEP and cc'd to EPA. Our comments to the EPA's TMDL are dedicated to the use of Nutrient Trading as a tool for reducing pollutants, and as a tool to allow for continued population growth and development within the Chesapeake watershed.

The Clean Water Act and other laws protecting our environment were enacted for the purpose of creating a sustainable society for ALL future generations. In the Clean Water Act we find a mandate to reduce loads until ALL waters are Fishable, Swimmable, and Drinkable. A Nutrient Trading program that is not based on thorough monitoring and verification, does not contain a long-term easement-like trading system, or increases quantities of substances that are currently unregulated but are known or suspected carcinogens and endocrine disruptors, will inevitably fall short of the goals of nutrient reduction, and sustainable waterways and communities. From what we have seen so far, we cannot endorse Nutrient Trading. Here are our concerns.

Unlike existing air quality trading programs that relate easily measured discharges from one smokestack to another, Non-Point to Point Source trading occurs between a model estimate and a measured discharge. A recent report from

UMCES points out the "uncertainty associated with reducing nutrients through best management practices."

Perspectives from the University of Maryland Center for Environmental Science on the Draft Reports Addressing Key Challenges to Chesapeake Bay Protection and Restoration 9/23/2009

Market Approaches Must Yield Quantifiable Benefits. Markets are a popular idea for cost-effectively achieving environmental benefits, but they require appropriate regulatory caps (e.g., nutrient and sediment caps, impervious surface caps) and accurate quantification of the benefits (e.g. reductions in sources) achieved. The latter requirement poses great challenges for markets that would allow non-point sources to trade with point sources because of the high levels of uncertainty associated with reducing nutrients through best management practices. Market systems should be promoted in which buyers pay for results and not just the implementation of a practice. This requires more rigorous assessment of BMP performance.

A recent USGS report and subsequent news articles suggest that agricultural BMP's may not be as effective as predicted. The Agricultural Industry on the eastern shore of Maryland would have us believe that they have already implemented programs to reduce runoff, yet actual sampling suggests that their efforts have not been successful.

Chesapeake Bay progress uneven, study shows Data suggest sewage upgrades working, farm runoff controls aren't By Timothy B. Wheeler, The Baltimore Sun September 15, 2010

A new study shows some Chesapeake Bay rivers have gotten cleaner over the past three decades, while others are getting worse. The analysis, released Wednesday by the U.S. Geological Survey, suggests costly upgrades of sewage plants have helped, scientists say, but it raises questions about the effectiveness of efforts to date to curb polluted runoff, particularly from farms on Maryland's Eastern Shore. "We're going in the wrong direction in some places, and the right direction in others," said William Dennison, vice president for science applications of the University of Maryland Center for Environmental Science. He called the USGS analysis a breakthrough in tracking where the 27-year-old bay restoration effort is making progress - and where it's falling short.

Nutrient Trading does not just trade N's and P's, but trades solutions, wastewater treatment plant effluent and agricultural runoff, that contain complex mixtures of metals, hormones, antibiotics, pharmaceuticals, industrial and medical wastes, etc. We have found no analysis of these additional pollutants. We find significant difference in the makeup of the solutions, but have no understanding of the costs/benefits of trading wastewater mixtures for agricultural mixtures, or for suburban or urban stormwater mixtures.

Some of the differences that must be looked at further are flow rates, seasonality, and local ("hotspot") impacts. WWTP effluent releases occur daily at a relatively constant rate. Agricultural Run Off is usually produced only during precipitation or freeze/thaw streambank erosion. Agricultural Run Off is seasonal and annual trends vary, allowing for periods of healing (as has been occurring in the Bay in the recent low precipitation years). WWTP effluent contains tens of thousands of chemicals that are not tested for, including endocrine disruptors and antibacterials. Agricultural Run Off also contains other bioactive chemicals such as hormones, antibiotics, and herbicides. Which is worse? Constant loads or variable? Local concentrations or broad non-point input? The unevaluated mixture of chemicals in WWTP effluent and sludge, or the unevaluated mixture in various manures? And how will this impact individual waterways? We do not feel that these questions have been satisfied, and would request that they be satisfied before endorsement or creation of a Nutrient Trading program.

While concerns regarding the financial burden of upgrading aging WWTP's is understood, trading to put off these upgrades begs the question: How long until Point Sources have to upgrade? This plan to put off upgrades seems to miss two points, one regulatory and one economic. The NPDES Program is designed to ratchet down on pollution discharges by requiring 5-year assessments of treatment efficiency based on Best Available Technology. This is our mechanism to eventually reach zero discharge. Are we abandoning BAT for "lowhanging fruit"? And the economic question: If there is a deadline for WWTP upgrades (which we haven't seen), the best bet for financing appears to be (with any luck in the economy) sooner rather than later.

New Point Sources are our next concern. In the current Pennsylvania program, there is very little assurance that new sources will be able to fulfill their required commitment to provide for credits "for the life of the project". Here are the relevant references for PA's plan to accommodate development.

Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for Sewage Facilities Planning

II. New Discharges and Facility Expansions

Where credits are purchased for new land development projects that result in new discharges or facility expansions, a developer or municipality must commit in writing, as part of the sewage facilities planning process, to purchase nutrient credits sufficient to offset nutrient loads from the project. If the purchase of credits is necessary to maintain the zero net increase of nutrients, then the assurance must provide for those credits for the duration of the design life of the project.

PA Draft WIP Section 6. (page 50)

Guidance Document Number 392-0900-001: Final Trading of Nutrient and Sediment Regulation Credits - Policy and Guidelines

The Department will expect to see assurances in the proposal that the credits will be provided to assure the long-term compliance for the treatment facility to meet the regulations in Chapter 71, Section 71.72.

For instance, a formal agreement between the municipality and the developer/permittee that establishes the developer/permittee's responsibility for operating and maintaining the system by providing credits, and the responsibility of the municipality or local agency for oversight of the system, would normally be an acceptable assurance.

Long-Term Availability of Credit is required to make such assurances. No commitments to credit availability have been made by any Department of Agriculture or Farm Bureau as to the "perpetual" availability of credits, as would be needed by a new source.

The demand for credits could come from a broad spectrum of users: existing WWTP's, expanding WWTP's, new WWTP's and POTW's, Municipal Stormwater MS4's, new development stormwater offsets, new industrial sources, electric utilities, and others. The agricultural community is being looked at as the major source for these credits, but again, no commitment of credit availability has been made. Availability of credits will be tied to crop prices and real estate markets. Shifts in the economy such as the recent ethanol rush could take "credited" lands out of the program to be replaced with cash crops. Assurances based on long term availability of credits are questionable, at best.

An additional concern is the long-term impact of new development to the availability of credits, as much of the development occurs on former agricultural lands. We currently count on our agricultural lands to process much of our WWTP sludge, as well as most of our animal waste. As development grows, the sludge burden grows. At the same time, the amount of available cropland decreases due to development. Animal production has not decreased, so the ever-declining amount of land is expected to process our "organic" wastes? In addition to the environmental concerns, the economics of trading in this fashion could greatly increase the cost of credits. As available agricultural land is reduced, the availability of credits, or supply, is reduced, driving the price up.

This leads us back to the "assurances" given by developers. Consider this scenario. A new neighborhood links into an expanding WWTP. The new users are charged based on Credit Price. This price goes up substantially as demand increases. Fifteen years from now the neighborhood association that has inherited these payments revolts at the prices and the residents contact their politicians. The politicians are outraged at the price of credits, and they change credit requirements. Now, hundreds of new neighborhoods pollute without offsets. This is our concern for the future. PERPETUAL easements are the only way to assure credit availability.

Different agricultural BMP's have different effects on our waterways. Proper buffers will reduce nutrients, sediment and pesticides. Manure export addresses nutrients but NOT endocrine disrupting herbicides. These variations need to be taken into consideration when making trades. Trading wastewater treatment plant effluent for manure exportation credits may reduce nutrients, but add substantially to the "emerging contaminant" concentrations.

Manure exportation to neighboring watersheds is not a sustainable strategy. Currently 1.2 million pounds/credits of Nitrogen are immediately available "Contingent on Sale Project that has been certified but the project will only be installed if the credits are purchased" *PA DEP Credit Registry. Much of this manure will be spread in the Delaware and Allegheny/Ohio watersheds. This practice could explode with passage of Interstate Nutrient Trading, causing loads to those waterways to increase.

Manure exportation leads us to another concern. Will it be legal to export manure for credit, and fertilize with sludge for cash? We have found nothing in the existing programs that would prevent this if agricultural operations were inclined to do this.

Another environmental consideration must be made for recent research by USGS suggesting that wetland expansion in Phosphorus saturated soils will increase release of available Phosphorus, the Dissolved Inorganic Phosphorus (DIP). DIP is the phosphorus immediately available to the Cladophora algae blooms that are choking the Susquehanna River. USGS has shown substantial increases in the DIP levels since 1985, while PA DEP claims Phosphorus reductions. Wetland expansion in the lower Susquehanna must be evaluated for Phosphorus saturation before it is encouraged or credited.

We have additional concerns regarding Verification and Accountability. DEP, MDE, and DEQ are currently all grossly deficient in transparency and/or enforcement. Maryland continues to deny Waterkeepers the Nutrient Management Plans that were ordered to be released by the court. The MD Farm Bureau fights transparency for NMPs, claiming it would destroy the Maryland agricultural economy (note: PA NMP's are available at DEP or County Conservation Districts.) Even in PA, the brokers hide the actual client's identity. Why should the public expect that the Nutrient Trading program will be transparent?

We continue to have concerns with the Verification and Accountability of agricultural credits. While a great deal of science has gone into predicting the removal efficiencies of different practices, the upkeep of these practices, and run off event variability still produce potential for broad inaccuracies in the modeling. Pennsylvania's program, which DEP claims will remain the same, has no individual farm or in-stream verification. To our knowledge, no funding has been committed by states for the needed increased staff requirements. Some suggest that verification will be done by Third Parties. These Third Party Verifiers are yet to be named. A Third Party Verifier system must NOT include brokers, as the Chicago Carbon Exchange does. This includes other parties that have "sector interests," such as the Farm Bureaus or industry organizations. Allowing verification to be done by interested parties, particularly brokers, is far too similar to the temptations of the mortgage crisis. Profit will be based on numbers of transactions, while verification is extra work without profit. Disinterested parties, possibly governmental, must be found to perform annual verification.

Proponents of Nutrient Trading assure us that the Clean Water Act has powerful tools for citizen oversight of trading. Government agencies and environmental non-profits can't keep up with the work that needs to be done now, let alone having an additional convoluted system of trades to verify.

IF these entities are expected to help in this endeavor, Transparency must be developed. Interstate Nutrient Trading will create complex webs of transactions for credits that may be spread across six states and 64,000 square miles of the Chesapeake.

Environmental Justice issues are a concern when considering Nutrient Trading programs. Communities with available funds will be able to purchase credits more readily, and they could buy more credits at higher prices, allowing continued pollution. Poorer communities, that may actually need credits to put off upgrades until funds can be procured, are at a disadvantage.

In a program where credit prices are being determined by annual auction, as in Pennsylvania's program, there is great uncertainty in the cost to the municipal or homeowners' association budget. As demand for credits increases and the cost per credit increases, poorer communities will pay a higher percentage of total community income, creating a greater burden on poorer communities.

Our final comment regarding Nutrient Trading has to do with its effect on Innovation. Innovation is spurred by demand. Trading puts off demand. A technology invented that will reduce nutrient loads at 40% of today's cost will still not be competitive with agricultural credits that will be abundant for the first years of the program. Cost-effective technologies are being tested and put in place. The Ostara direct phosphorus removal system has been put in place at two Chesapeake watershed WWTP's, in York, PA and in Suffolk, VA. With experts predicting a "phosphorus peak" within 40 years, technology to save phosphorus needs to be put in place. Currently 10% of all mined phosphorus is passing through WWTP's. This needs to be recovered.

There are Alternatives to Nutrient Trading. EPA's Backstop TMDL is already designed to put pressure on the states to reduce non-point sources. The threat of the TMDL to reduce loads from WWTP's to Best Available Technology will encourage WWTP's to fund BMP's, without providing credits to increase pollution. This could be done on subwatershed levels where the actual reductions could be monitored and documented.

The Clean Water Act NPDES program was designed to combine funding with required technological improvements.

Funding is currently available at record-low interest rates. This is the perfect financial market to be taking out bonds for municipal WWTP upgrades.

Response

Thank you for your comments. EPA took these into consideration as it finalized the TMDL and continues to work with the Chesapeake Bay jurisdictions to develop and implement orderly, accountable, transparent and effective offset and trading programs. EPA shares your concern that offset and nutrient credit trading programs not cause water quality or other environmental problems in the Bay watershed. This type of unintended consequence is directly addressed by the common elements of offset and trading programs in the draft and final TMDL as well as EPA's existing water quality trading policy and trading toolkit for NPDES permit writers (documents cited in the TMDL Appendix). It is EPA's view that if an offset or trade would result in local exceedances of water quality standards, that such a trade could not be authorized under EPA regulations. EPA will continue to work closely with the Bay jurisdictions to ensure that such unintended consequences are avoided.

Comment ID 0710.001.006

Author Name: Berger Karl

Organization: Metropolitan Washington Council of Governments (COG)

Is it EPA's view that the state WIPs must establish a WLA that is lower than the 2009 progress level for existing urban stormwater loads (Le. through application of retrofits) before they can establish reasonable assurance for a trading program?

Does this same point apply to septic (Le., state must establish a performance standard requiring load reductions before it can establish reasonable assurance for a trading program)?

Response

Thank you for your comments. The final TMDL is the baseline from which both point and non-point sources develop their credit generation protocols as part of their particular state's trading and offset programs.

Comment ID 0732.001.008

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

EPA Needs to Play a Stronger Role in Governing Nutrient Trading and Offsets

For the last several years, CBF has been actively engaged in the development of the nutrient trading programs in

Maryland, Virginia and Pennsylvania. The Chesapeake Bay TMDL provides a unique opportunity to demonstrate that a nutrient trading program, subject to strict oversight and carefully-crafted rules keyed to environmental performance targets, can help make a regulatory program function in a more economically efficient way. In particular, there is the potential for nutrient trading to help local governments comply with stormwater permits in a more cost-effective way and as a framework to account for, and offset, new loads of nitrogen and phosphorus resulting from growth and development.

As with other elements of the Chesapeake Bay Program, successful work on offsets and trading in the Chesapeake Bay could serve as a powerful model to consider in other watersheds. Unfortunately, substantial differences currently exist among the trading programs that have developed in the watershed states. This not only presents issues of inequity, but also will hamper efforts to establish an interstate trading program that could present even more opportunities for economic efficiency. Consequently, EPA needs to work to harmonize the state programs and use its oversight of the WIPs and of state-issued permits to ensure that offsets for new growth and trades to meet reduction targets operate by the same rules - rules that ensure transparency, accountability, scientific integrity, and consistency - among jurisdictions. See EPA guidance entitled "Guide for the Evaluation of Watershed Implementation Plans," dated April 2, 2010 and attached Settlement Agreement of May 10, 2010, specifically Section III.B.4.f and 11 (EPA oversight of offsets a specific obligation.) [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1, page 79 of the pdf]

EPA's Appendix S, "Offsetting New or Increased Loadings of Nitrogen, Phosphorous and Sediment to the Chesapeake Bay Watershed", and Section 10, TMDL Implementation and Adaptive Management, outline broad expectations for offset programs within and among Bay states. The use of a comprehensive set of definitions, common elements and program features that guide trading among both new and existing sources of nitrogen and phosphorous are necessary to further effectuate success. Clear, rigorous and consistent rules will help maintain the integrity of a trading system while fostering market clarity and stability. The principles outlined in Appendix S, in combination with many strong elements in EPA trading policies, must be implemented to ensure that trading contributes to, and does not undermine, progress toward meeting the TMDL goals.

In particular, EPA needs to play a strong and active role in defining "baseline." In this context, we are referring not only to the baseline that must be achieved before an entity can sell credits in the compliance market, but also the baseline for estimating new loads that need to be offset.

In the case of the former, EPA should require the states to demonstrate that their baseline for sellers equates to that entity's proportion of achieving the Bay TMDL. The current definition of baseline in Pennsylvania for agricultural producers would not meet this standard. EPA must establish a requirement for this demonstration from all states that wish to participate in nutrient trading. Furthermore, it is likely that the baseline will need to be a performance-based approach that requires a certain level of pollution reduction. This will provide greater flexibility in how achievement of the baseline occurs (when compared to a more prescriptive approach) and will ensure consistency with necessary pollution reduction targets.

In terms of setting the baseline for offsetting new loads, EPA action needs to reflect elements reflected in the policy document submitted by CBF in September in response to a request for informal comments on Appendix S. A copy of the document is attached and incorporated herein by reference. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1, page 297 of the pdf]

Finally, EPA must lead efforts to harmonize accounting and verification systems for nutrient credits, including the establishment of a regional nutrient credit registry. See attached Settlement Agreement, specifically Section III.B.11. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0732.1, page 79 of the pdf]. Currently, there are at least two calculation tools that are being used to estimate pollution loads from farms: "NutrientNet" developed by the World Resources Institute and the "Nutrient Load Estimator" developed by Water Stewardship Inc. Potentially, the loadings output from these two models may be different and this disconnect has the potential to add an unnecessary layer of confusion and skepticism to the nascent trading market. In collaboration with the Natural Resources Conservation Service, EPA must drive a consensus on the calculation tool as well as verification procedures for nutrient credits.

Response

Thank you for your comments. EPA took these comments into consideration as it finalized the TMDL and will continue to work with the states in the development of their trading and offset programs. EPA agrees that rigorous oversight, transparency, and accountability are important for the development and implementation of successful and legitimate offset and trading programs. EPA is collaborating with the World Resources Institute (WRI) and project partners in their project to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed. This project seeks to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project. EPA also supports the expansion of existing jurisdictional offset and trading programs to incorporate additional sources of loadings and to provide innovative and flexible approaches for meeting TMDL allocations. Your comments with respect to EPA's role in establishing a rigorous baseline for credit seller eligibility and a clear baseline for estimating new loads that need to be offset are very much on point. EPA fully considered these points as it finalized the TMDL and will continue to focus in these key points as we work with the jurisdictions to in the development and expansion of orderly, accountable, transparent and effective nutrient credit exchange programs.

Comment ID 0746.1.001.020

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Finally, the TMDL and the NY WIP should explicitly allow trading and other mechanisms that DEC can use to change allocations within and between the six broad source categories listed in the Draft WIP for the Bay TMDL, without having to first have a modification to the TMDL (or the New York WIP) approved by USEPA.

Response

Thank you for your comment. EPA considered your suggestion as it finalized the TMDL and continues to work with the Chesapeake Bay jurisdictions to develop and implement offset and trading programs that incorporate appropriate levels of

flexibility for program participants.

Comment ID 0747.001.001

Author Name: Hankins Joseph

Organization: Jefferson County (West Virginia) Public Service District

A transparent and accessible framework for regional or inter-state water quality trading and nutrient offset provision must be developed. USEPA must take a leading role in assuring that a credible, defensible and efficient system is available to point source permit holders.

Response

Thank you for your comments. EPA is aware that the World Resources Institute (WRI) is currently leading a collaboration to develop an online multistate water quality trading platform and carbon estimation tool for the Chesapeake Bay watershed, and EPA remains very interested in this project. The project is intended to build a common integrated platform to facilitate the alignment of state infrastructure for registries, marketplaces, and calculation tools and could be the foundation for interstate trading in the Chesapeake Bay watershed. In 2010, WRI received a Conservation Innovation grant from USDA NRCS to fund this project. EPA also supports the expansion of existing jurisdictional offset and trading programs to incorporate additional sources of loadings and to provide innovative and flexible approaches for meeting TMDL allocations.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 28. Revising the TMDL

Pages 2739 – 2752

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

28 - REVISING THE TMDL

Comment ID 0038.1.001.026

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

After a presidential executive order making the Chesapeake Bay a high priority item, I feel that the most important part of the following steps is the "adaptive management." As progress continues and improvements are made, it is important to adapt the way water quality is being managed, but avoid the necessity of federal actions or consequences. If something is not written into the TMDL about revisiting the system besides at the two goal dates. What is the plan about monitoring the progress over time? Is there room for revision or are there requirements for revision to the TMDL?

Response

Please refer to Sections 5.2 and 7.2.3 of the final Chesapeake Bay TMDL document for a discussion on the Bay monitoring network and the accountability tracking system. Please refer to Section 10.3 of the final document which outlines plans and procedures for future revisions to the TMDL.

Adaptive management is important to such a long implementation period as that being employed for the Chesapeake Bay. With several 'reassessments' of the state Watershed Implementation Plans and the TMDL planned and the 2 year milestones, there is currently planned adequate opportunity for adaptive management of the Bay restoration. Much of the planning and actions for the restoration of the Chesapeake Bay is contained in the state Watershed Implementation Plans and not in the Bay TMDL. As such, these plans can be modified when necessary by the states.

Comment ID 0126.1.001.008

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Within the Model TMDL and with future evaluations there needs to be provisions for the inclusion of those BMP improvements that are or have been implemented through voluntary means.

Response

Please see response to comment 0648-cp.001.002,

Comment ID 0154-cp.001.005

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- TMDLs and allocations should not be finalized until the WSM model update process is complete so that the projected benefits will be accurate and local governments do not waste scarce resources doing analysis and making decisions twice.

Response

Please refer to comment 0169.1.001.006

Comment ID 0169.1.001.006

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

In fact, EPA has effectively acknowledged that the model and model inputs are incomplete by announcing its intention to conduct additional model calibration after the TMDL is established.

Response

As stated in the letter from Shawn Garvin (EPA Region 3 Administrator) to the Principals' Staff Committee on June 11, 2010, "prior to 2017, EPA plans to review the full suite of the partnership's Bay models based on the best available science and decision-support tools and consider whether updated models should be developed to support phase III implementation plans and potential modifications to the Bay TMDL allocations."

New data and science will always continue to become available and, as stated in the above mentioned letter, EPA is using an adaptive management approach to incorporate new information as it becomes available with scheduled upgrades during 2011 and 2017. There is no anticipation of jurisdictions over-controlling nutrients in the interim.

Link to the letter: <http://archive.chesapeakebay.net/pubs/TMDLScheduleLetter.pdf>.

Comment ID 0227.1.001.019

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

As essential as TMDLs are to establish responsibility for water quality cleanup actions, they are also a flexible tool. EPA can propose modifications at any time based on changes in water quality standards and improvement of modeling and analytical tools. This is an important feature of TMDLs. We noted that EPA will evaluate modifications of the Chesapeake Bay TMDL as early as 2011 based on improvements in the state WIPs and other factors. There is a general commitment to continuous evaluation and improvement in the Bay Program.

Response

Please see response to Comment 0410.1.001.024

Comment ID 0265.1.001.029

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

VII. CONCLUSIONS AND RECOMMENDATIONS

EPA has promoted the Bay TMDL as employing an adaptive management approach to restoring the Bay and protecting the James River, yet its approach to establishing the allocations reflects anything but an adaptive approach. Rather than calling for incremental additional load reductions that account for the unresolved significant questions surrounding the accuracy of the chlorophyll-a modeling predictions and the absence of any quantifiable benefit from achieving load reduction greater than those called for in the James River Tributary Strategy, EPA appears to be determined to press ahead with proposed allocations that call for load reductions that may go well beyond those needed to restore the Bay and protect the James River. Adaptive management avoids wasted time and money by providing for the incremental commitment of resources until the applicable water quality standards are attained. EPA's approach will not achieve compliance with the standards any earlier, but it does pose a serious risk that the Localities and other sources in the James and York river basins will expend far more resources than needed to attain the applicable water quality standards.

If EPA is truly committed to an adaptive management approach to the TMDL, it will establish the TMDL based upon the allocations in the Tributary Strategies while working with the modeling community to address the unresolved issues with the Phase 5.3 Model and the chlorophyll-a modeling predictions. Once these issues are resolved, the TMDL can be updated and modified, if necessary, to reflect allocations based on a fully developed and calibrated Phase 5.3 Model, verified model inputs, and model predictions that (unlike the current predictions) do not have to be manipulated to produce results consistent with the observed data. In the meantime, progress toward attainment of the applicable standards can continue. Much remains to be done to attain the Tributary Strategies allocations so no time will be lost while the work needed to make the Model reliable enough to establish TMDL allocations and fix the model inputs continues,

The approach we recommend would achieve our mutual water quality goals for the Bay more efficiently, cost-effectively, and quickly by fostering the federal, state, and local partnership that is so critical to an undertaking of this magnitude. EPA's adherence to an artificial deadline for establishing the TMDLs and its heavy-handed approach to date

serves only to undermine that partnership and create distrust and resistance on the part of those who must bear the burdens of achieving the load reductions required to restore the Bay and protect the James River.

Response

The reason this TMDL is necessary is because the bay has not achieved the water quality goals by 2010 as committed by the Bay partners. One reason for not achieving a restored bay by that time is the practice of study and delay as suggested in this comment. The bay restoration is planned to take 15 years. If future studies suggest that different levels of controls are necessary to protect the bay, this TMDL can be modified to reflect that new information. Until then, this TMDL uses the best available science to support the loadings (and reductions) necessary to restore the Chesapeake Bay. In this way the TMDL sets the loadings needed to achieve the existing state water quality standards regulations as required under the Clean Water Act.

Comment ID 0298.2.001.027

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

The Model results that are the basis for the proposed allocations are clearly lacking in the level of precision and certainty required to justify the resulting billions of dollars in costs. EPA professes to be taking an adaptive management approach to the TMDLs; but in reality, EPA is taking an adaptive legal and regulatory approach to the TMDLs by establishing the TMDLs based on incomplete and flawed science and then seeking to supply the missing documentation after the fact.

If EPA is truly committed to an adaptive management approach to the TMDLs, it would adopt them based upon the allocations in the Tributary Strategies and then update the TMDLs when the Phase 5.3 CBWM is fully transparent, developed and calibrated to within an acceptable margin of uncertainty. No time would be lost if EPA's accountability framework remains in place to ensure that progress toward achieving the Tributary Strategy allocations continues while work on the Phase 5.3 CBWM and model inputs are underway. In fact, the approach we recommend likely would achieve our mutual water quality goals for the Bay more efficiently, cost-effectively, and quickly by fostering the federal, state, and local partnership that is so critical to an undertaking of this magnitude. EPA's blind adherence to an artificial deadline for establishing the TMDLs and its heavy-handed and opaque approach to date serves only to undermine that partnership and create distrust and resistance on the part of those who will bear the burden.

Response

Please refer to response to comment # 0265.1.001.029.

Comment ID 0300.1.001.008

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

We understand that EPA intends to work with the states to enable them to make TMDL revisions during 2011 as new modeling data and other information become available. We recommend that EPA clarify how this TMDL adjustment process will actually work, include a schedule, and identify the potential implications for WIPs, NPDES permits including MS4s, and other affected parties.

Response

EPA has included an expanded discussion on revision to this TMDL in Section 10. It must be clear that NPDES permits must be issued consistent with the assumptions and provisions of a TMDL.

Comment ID 0303.1.001.005

Author Name: Pattie Dudley

Organization: Rapidan Service Authority (RSA)

In addition, as the Chesapeake Bay Program has long ago determined, the York River does not influence mid-Bay water quality and any regulation of York River nutrient discharges should occur only for local water quality protection. For about a decade, Virginia has been operating under a York River Tributary Strategy for this purpose. To this end, the State issued the Virginia Regulations governing WWTPs in the York River basin (and others). Local governments have designed and constructed the required new facilities with long-term debt, which now must be repaid by the public over the next 20 to 30 years.

Response

Please see response to comment # 0288.1.001.028.

Comment ID 0376.1.001.002

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

Regulated wastewater and stormwater discharges from industrial sources are unique to each industrial site and process. Throughout the history of the Bay program, industry has worked collaboratively with EPA, Virginia's regulatory agencies and other stakeholders to assess and control industrial discharges as part of the industrial community's responsible share of the Bay reductions.

VMA has been an active participant in all of the Bay restoration efforts, including:

(i) In 1997, when Virginia enacted the Water Quality Improvement Act, establishing a process for developing goals and providing funds for both point source and non-point source improvements.

(ii) In 2005, when the Tributary Strategies were adopted. These strategies were instrumental in facilitating progress toward the Bay restoration goals by setting a cap on nutrient loads from significant point source dischargers. Virginia was the first state in the Bay watershed to establish such a cap.

(iii) In 2005 during the development of Virginia's Watershed General Permit, a permit lauded by EPA as an example for other states.

(iv) In 2005, 2006 and 2007 during the development and implementation of a Nutrient Credit Exchange Program (the "Exchange"), a program lauded by EPA as an example for other states. Two VMA member companies serve on the Board of Governors for the Exchange Association, and many of VMA's members participate in the Exchange, which has successfully developed trading strategies for the Virginia tributaries that discharge into the Chesapeake Bay.

(v) In 2009, the General Assembly expanded the Exchange by amending the Code of Virginia to allow for a stormwater nonpoint nutrient offsets program for new development.

(vi) In 2009-2010, VMA members volunteered to serve on the Stakeholder Advisory Group ("SAG") that assisted in formulating and reviewing Virginia's WIP.

Of course, VMA has not been alone in these endeavors. In Virginia, at least, the Bay restoration effort has been collaborative, with sustained involvement by all of the interested Bay stakeholders (from regulated industrial and municipal facilities to agricultural interests, homebuilders, watermen and environmental advocates, among many others). Working together, these stakeholders have made meaningful forward progress through consensus, compromise and cooperation. As a result of this collaborative partnership and a collective investment of more than \$1.5 billion over the past five years, Virginia has achieved significant reductions in nutrient loads discharged to the Bay from municipal and industrial wastewater treatment facilities.

To achieve their fair share of the necessary reductions, Virginia's industrial dischargers have made many significant strategic decisions about changing their production processes or their treatment technologies. By way of brief examples:

- One facility invested millions of dollars into a project that decreased its phosphorus loadings by more than 80%.
- Another facility replaced chemicals high in phosphorus with chemicals low in phosphorus, increasing operating cost but reducing loading.
- Still another facility segregated a concentrated phosphorus wastewater stream and supplied it to another treatment facility that lacked the required amount of phosphorus for its treatment system.

Nearly all of the major industrial dischargers in the watershed are registered to participate in the Exchange. Virginia's

General Assembly, regulatory agencies and regulated community have invested substantial time and money into the success of this program. The Exchange consists of local governments and industries discharging into the Chesapeake Bay watershed working together to achieve water quality goals responsibly and cost-effectively. The Exchange's compliance plans are based on accurate input from its members, and have helped to facilitate the timing and development of comprehensive wastewater treatment system upgrades needed to achieve the TN and TP reductions that Virginia has already committed to achieve.

Response

While much has been achieved thru the watershed general permit and VMAs cooperation, the available science and the TMDL has concluded that more controls are necessary in some parts of Virginia. It is EPA's expectation that this permit will be revised to be consistent with the WLAs of the established TMDL.

Comment ID 0436.1.001.029

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

VII. CONCLUSIONS AND RECOMMENDATIONS

EPA has promoted the Bay TMDL as employing an adaptive management approach to restoring the Bay and protecting the James River, yet its approach to establishing the allocations reflects anything but an adaptive approach. Rather than calling for incremental additional load reductions that account for the unresolved significant questions surrounding the accuracy of the chlorophyll-a modeling predictions and the absence of any quantifiable benefit from achieving load reduction greater than those called for in the James River Tributary Strategy, EPA appears to be determined to press ahead with proposed allocations that call for load reductions that may go well beyond those needed to restore the Bay and protect the James River. Adaptive management avoids wasted time and money by providing for the incremental commitment of resources until the applicable water quality standards are attained. EPA's approach will not achieve compliance with the standards any earlier, but it does pose a serious risk that the Localities and other sources in the James and York river basins will expend far more resources than needed to attain the applicable water quality standards.

If EPA is truly committed to an adaptive management approach to the TMDL, it will establish the TMDL based upon the allocations in the Tributary Strategies while working with the modeling community to address the unresolved issues with the Phase 5.3 Model and the chlorophyll-a modeling predictions. Once these issues are resolved, the TMDL can be updated and modified, if necessary, to reflect allocations based on a fully developed and calibrated Phase 5.3 Model, verified model inputs, and model predictions that (unlike the current predictions) do not have to be manipulated to produce results consistent with the observed data. In the meantime, progress toward attainment of the applicable standards can continue. Much remains to be done to attain the Tributary Strategies allocations so no time will be lost while the work needed to make the Model reliable enough to establish TMDL allocations and fix the model inputs continues,

The approach we recommend would achieve our mutual water quality goals for the Bay more efficiently, cost-effectively, and quickly by fostering the federal, state, and local partnership that is so critical to an undertaking of this magnitude. EPA's adherence to an artificial deadline for establishing the TMDLs and its heavy-handed approach to date serves only to undermine that partnership and create distrust and resistance on the part of those who must bear the burdens of achieving the load reductions required to restore the Bay and protect the James River.

Response

Please refer to response to comment 0265.1.001.029.

Comment ID 0476.1.001.001

Author Name: Farasy Thomas

Organization: Maryland State Builders Association (MSBA)

We are pleased to present our comments on the draft Chesapeake Bay Watershed TMDL. We believe that a TMDL which is fair and equitable and cost effective will provide the greatest level of reasonable assurance of a successful program results to clean up the Chesapeake Bay by 2025.

Additionally, we are very optimistic that there are substantive desires across the board for all of the sectors, and our political leadership to find practicable solutions that can achieve the Bay goals.

We respectfully submit the following comments on the draft TMDL:

1. EPA should rectify the Chesapeake Bay Model based on the Phase 5.3mod urban acreages and reassess the TMDL load allocations based on the corrected output before issuing the TMDLs.
2. EPA should restate the goal of retrofit based upon acreage so that any substantive change in the amount of impervious due to the corrected BayShed model that does not balloon the States' retrofit obligations.

Response

EPA has finalized the Bay TMDL based on available and defensible science.

Comment ID 0480.1.001.012

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

As essential as TMDLs are to establish responsibility for water quality cleanup actions, they are also a flexible tool. EPA

can propose modifications at any time based on changes in water quality standards and improvement of modeling and analytical tools. This is an important feature of TMDLs. We noted that EPA will evaluate modifications of the Chesapeake Bay TMDL as early as 2011 based on improvements in the state WIPs and other factors. There is a general commitment to continuous evaluation and improvement in the Bay Program.

Response

EPA agrees with this comment.

Comment ID 0496.1.001.025

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

VII. CONCLUSIONS AND RECOMMENDATIONS

EPA has promoted the Bay TMDL as employing an adaptive management approach to restoring the Bay and protecting the James River, yet its approach to establishing the allocations reflects anything but an adaptive approach. Rather than calling for incremental additional load reductions that account for the unresolved significant questions surrounding the accuracy of the chlorophyll-a modeling predictions and the absence of any quantifiable benefit from achieving load reduction greater than those called for in the James River Tributary Strategy, EPA appears to be determined to press ahead with proposed allocations that call for load reductions that may go well beyond those needed to restore the Bay and protect the James River. Adaptive management avoids wasted time and money by providing for the incremental commitment of resources until the applicable water quality standards are attained. EPA's approach will not achieve compliance with the standards any earlier, but it does pose a serious risk that the Localities and other sources in the James and York river basins will expend far more resources than needed to attain the applicable water quality standards.

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The approach we recommend would achieve our mutual water quality goals for the Bay more efficiently, cost-effectively, and quickly by fostering the federal, state, and local partnership that is so critical to an undertaking of this magnitude. EPA's adherence to an artificial deadline for establishing the TMDLs and its heavy-handed approach to date serves only to undermine that partnership and create distrust and resistance on the part of those who must bear the

burdens of achieving the load reductions required to restore the Bay and protect the James River.

Response

Please refer to response to comment # 0265.1.001.029.

Comment ID 0510.1.001.003

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

There are five reasons, outlined below that we believe require EPA to reissue the Draft after reevaluating the rationale, data and/or authority for its proposed actions. Any one of the reasons is sufficient to question the validity of the EPA action to publish the rule as the agency has. The comments below reflect many of the same concerns expressed by a significant number of both national and local agricultural stakeholders. NASDA shares the concerns of the agricultural community and provides the following comments to express the serious concerns state regulators-from across the country-have with the Draft TMDL:

--Agriculture and Forestry, through state programs as well as other voluntary, incentive based programs, have made and continue to make significant contributions to improvements to water quality in the Chesapeake Bay that are not given credit in EPA's model.

--EPA has failed to provide meaningful public review of the Draft TMDL by having failed to be transparent regarding its data.

--The Draft TMDL is arbitrary and capricious as it is based on inputs the EPA has acknowledged are flawed.

--The Draft TMDL is contrary to existing law.

--The Draft TMDL, if actually implemented, would result in substantial and widespread economic and social impact that is not necessary to attain realistic goals.

Response

EPA strongly disagrees and has issued the final TMDL based on sound science.

- In spite of EPAs request for years for all information on the installed controls, there remain some BMPs that have not been reported. This does not invalidate the TMDL at all, but it does jeopardize a states demonstration of its progress in achieving the TMDL
- The Bay TMDL and its supporting information has been extremely well documented and is available to the public. Appendix B of the document provides the hundreds of documents that are available in support of the TMDL. Appendix C lists the hundreds of meetings, open to the public in support of the TMDL. Two EPA websites epa.gov/chesapeakebaytmdl/ and chesapeakebay.net both provide extensive information in support of the TMDL
- The TMDL is logical, well based on science, and is supported by the Clean Water Act
- The legal support for this TMDL is clearly described in Section 1
- No evidence is offered in support of the assertion that there will be widespread economic and social impact. One point that the

commenter overlooks is that the degradation of the Chesapeake Bay has already resulted in documented economic and social impact.

Comment ID 0510.1.001.016

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

We urge EPA to withdraw its Draft TMDL, address the flaws in its modeling, and work with the states to develop TMDLs for the Chesapeake Bay Watershed that are attainable. Failure to do so will significantly impact the economic viability of agricultural producers in the bay and the rural communities which they support.

Response

Please refer to response to comment 0510.1.001.003

Comment ID 0514.1.001.005

Author Name: Schwartz Jerry

Organization: American Forest & Paper Association (AF&PA) and National Alliance of Forest Owners (NAFO)

Based on the deficiencies we have identified and the numerous other deficiencies in the other comments referenced above, AF&PA and NAFO concur with those comments that EPA should withdraw the TMDL, or, if EPA does not withdraw the TMDL, the agency should revise it significantly.

Response

The final document reflects substantial revisions from the draft TMDL. These revisions were informed by the public comments and the final state WIPs.

Comment ID 0528.1.001.019

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

EPA professes to be taking an adaptive management approach to the TMDLs; but in reality, EPA is taking an adaptive legal and regulatory approach to the TMDLs by establishing the TMDLs based on incomplete and flawed science and then seeking to supply the missing documentation after the fact.

If EPA is truly committed to an adaptive management approach to the TMDLs, it would adopt them based upon the allocations in the Tributary Strategies and then update the TMDLs when the Phase 5.3 CBWM is fully transparent, developed and calibrated to within an acceptable margin of uncertainty.

Response

Please refer to response to comment # 0265.1.001.029.

Comment ID 0548.1.001.011

Author Name: Smith Brooks

Organization: Utility Water Act Group

9. EPA needs to take an even more iterative and less rigid approach to the TMDL.

EPA has signaled its support for adaptive management in the TMDL process, especially with respect to future course corrections in EPA's new "accountability" framework. However, the Agency has not gone far enough to embed adaptive management principles into the TMDL allocations, assumptions, or requirements.

Given the size and complexity of this TMDL, it is vital that EPA acknowledge the inherent limitations in its ability to predict with confidence the reductions that are needed to restore the Bay or the effect of EPA's proposed reductions on our Bay restoration goals. It is equally important that EPA recognize the shared roles and responsibilities of the federal and state government under the Clean Water Act - roles and responsibilities that Congress designed to be cooperative, not coercive.

Rather than fight over issues of precision and authority now - a fight that tends to polarize positions and divide stakeholders who otherwise might agree to work together in a cooperative manner - EPA should take a phased and adaptive approach, first identifying the immediate, near-term reductions for which there is general consensus, and then projecting future phases based on additional data collection and modeling refinements. Such an approach would allow for reasonable forward progress even in the face of uncertainty, and help to minimize (or narrow) the potential for a fight over EPA's final TMDL decision.

Response

Please refer to response to comment # 0265.1.001.029.

Comment ID 0710.001.002

Author Name: Berger Karl

Organization: Metropolitan Washington Council of Governments (COG)

Oh behalf of our Bay Policy Committee Chair Cathy Drzyzgyula, other attendees at the meeting and COG staff, thank you very much for the precious 1 1/2 hours you spent with us on Sept. 29. We may not agree with every single one of your policy choices, but we certainly appreciate your willingness to talk and listen.

I had a series of rather technical questions about the TMDL that I did not get a chance to ask during the meeting. It was more important that you hear our members' concerns. However, in the spirit of further dialogue and in the hope that someone on your staffs may be able to respond, I have listed the questions I didn't get a chance to ask below. They are not so much comments on the TMDL itself as questions that were raised by my (still very incomplete) review of the TMDL documentation. I have copied Norm Goulet because many of the questions relate to EPA actions in response to the Virginia WIP and may well turn up at the stakeholder meeting in northern Virginia next week.

TMDL Technical questions:

Does the TMDL document itself state that the allocation numbers can or will be adjusted after Dec. 31, 2010, to reflect changes requested by states or other stakeholders, revised modeling results or errors in the original document?

Response

Section 10 contains an expanded explanation of the opportunities for future modification of the TMDL.

Comment ID 0740.001.013

Author Name: Hanmer R.

Organization:

Once the TMDL loads have been allocated officially to states and tributary rivers, the states finally will be able to subdivide the, loads to the responsible local jurisdictions (principally counties) and place accountability for local actions where it belongs. This will facilitate assessment of local economic issues, help identify the most efficient approaches, and finally mobilize all those who must act to restore the Chesapeake Bay estuarine waters and their natural resource abundance.

This TMDL process is designed to result in a clear and transparent allocation of nutrient and sediment loads within each state, and among sources and categories of sources, so as responsibly and cost-effectively to apportion responsibility for achieving compliance with water quality standards over a reasonable period of time. The continuing planning process which is built into the Clean Water Act (sec. 303), coupled with EPA's commitment in the TMDL to adaptive management, will allow the states and EPA appropriate flexibility to make mid-course corrections along the way - both to assure reasonable progress and to avoid unfair economic burdens on any particular sector or source.

Response

Agree.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

**Issue Category:
29. Federal Facilities and Lands**

Pages 2753 – 2756

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

29 - FEDERAL FACILITIES AND LANDS

Comment ID 0435.1.001.011

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Federal Facility Responsibilities

Comment:

The land area of the City is 53.7 square miles. The Norfolk Naval Base, Norfolk Naval Air Station, Navy Saint Helena Annex and the Army's Fort Norfolk facility are located in the City of Norfolk. These federal facilities comprise nearly one tenth of the total land area within the City. The proposed EPA backstop for managing urban runoff is to retrofit 50 percent of the urban land area for storm water runoff. The City feels that the EPA has failed to address waste load allocations from federal lands.

Recommendation:

The TMDL should contain a clear statement that federal lands located within Bay jurisdictions shall be subject to the same waste load allocations and or backstops imposed by the EPA to ensure that the pollutant reductions are achieved by all point source dischargers equitably. EPA should clearly state how they will assist state agency personnel in monitoring implementation of commitments made by federal agencies on federal lands and provide enforcement assistance if necessary. Federal progress to meeting the WIP and/or backstops should also be publically reported in two-year milestones.

Response

EPA agrees that federal lands are subject to the provisions of the TMDL. A statement to that effect is included in Section 10.4 Federal Facilities and Lands (pg. 10-5) "EPA expects federal land owners to be responsible for achieving LA and WLA through actions, programs, and policies that will reduce the release of nitrogen, phosphorous, and sediment (CWA section 313, 33 U.S.C. 1323)." With regard to federal two-year milestones and tracking progress, Section 10.4 Federal Facilities and Lands (pg. 10-5) states "Federal agencies are expected to create 2-year milestones related to planned actions for inclusion in jurisdictions' Phase II WIPs. The milestones will be the basis for tracking progress and providing transparency on federal sector performance related to agency TMDL responsibilities in the watershed." EPA will assist the jurisdictions in monitoring implementation by including federal actions in the Bay Tracking and Accountability System (BayTAS).

Comment ID 0442.1.001.014

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

12. EPA Needs to Require Federal Sector to Match or Exceed State and Local Standards

Consistent with the President's Chesapeake Executive Order (#13508) and the Fiscal Year 2011 Action Plan, the federal sector should "lead by example" and be held accountable to the highest overall reduction efforts. This goes beyond the currently defined air reductions and is particularly critical for federal facilities in urban areas that contribute stormwater-related loads to local waters. It should also be made clear that state facilities also must meet local requirements. Federal implementation efforts should be part of the formal 2-year milestone reporting process.

Example:

In the District of Columbia, federal facilities represent about 30 percent of the overall area of the city. Clearly, city-wide target for stormwater load reductions under the provisions of the city's proposed MS4 permit are unobtainable without the assistance of various federal agencies in proposed retrofit, green roofing and tree planting initiatives. In recent correspondence, GAO took the position that the federal government was not obligated to pay the District of Columbia's impervious surface fee. This position violates the spirit of "lead by example" and should be reversed.

Recommendation #12: Provide an Inventory of Stormwater Management on Federal Facilities

We request that EPA and the states take the lead in conducting an inventory of how federal facilities throughout the watershed manage stormwater. The states and EPA should set reduction targets for these facilities, including roads and highways, which will exceed those that may be required of local jurisdictions (ref. Section 10.4 Federal Facilities & Lands). The federal and state government experience in trying to meet these targets will provide a test case for the feasibility of achieving TMDL targets for other parties such as local governments.

Response

Federal agencies that own land in the watershed are required to implement the stormwater requirements of the Energy Independence and Security Act (EISA) section 438 during new development and redevelopment while following the EISA guidance issued by EPA. All of the agencies named in the EO 13508 are actively developing policies and procedures or already have such policies in place to conform with the EISA requirements. In some cases, the result will be more stringent performance requirements than those typically used on non-federal lands (e.g. a more rigorous stormwater retention standard). With regard to federal two-year milestones and tracking progress, Section 10.4 Federal Facilities and Lands (pg. 10-5) states "Federal agencies are expected to create 2-year milestones related to planned actions for inclusion in jurisdictions' Phase II WIPs. The milestones will be the basis for tracking progress and providing transparency on federal sector performance related to agency TMDL responsibilities in the watershed." EPA will assist the jurisdictions in monitoring implementation by including federal actions in the Bay Tracking and Accountability System (BayTAS).

Comment ID 0516.1.001.015

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

14) The EPA should ensure that all federal and state facilities and public lands in the watershed undertake stormwater retrofits to meet TMDL allocations and state 2-year milestones. The federal and state facilities and lands should follow guidance developed by EPA pursuant to Section 438 of the Energy Independence and Security Act and Section 502 of Chesapeake Bay Executive Order (13508). All new government construction should meet a requirement for no net increase in rate, volume, or pollutants for a 5-year storm.

Response

All of the elements mentioned in the comment are included in Section 10.4 Federal Facilities and Lands of the TMDL.

Comment ID 0517.1.001.003

Author Name: Miller Christopher

Organization: Piedmont Environmental Council

PEC commends the attention to the Federal government as a major landowner within the Chesapeake Bay watershed and the importance of federal land managers leading by example. Needless to say, there is much work to be done. Federal lands, Federal office space, and private office space constructed and managed to meet Federal agency needs are a huge component of real estate development in the region. One only has to visit the offices of the various Federal partners to the Chesapeake Bay program to observe that Federal criteria for leasing office space need to include clear language on the application of best management practices for Low Impact Development and buffering of riparian areas. In the Piedmont region, the Federal Emergency Management Agency facility at Mount Weather has reduced forest cover and increased impervious surface dramatically.

Similarly, Federal aid highway construction represents one of the largest conversions of land to impervious surface and a major sediment and erosion challenge. The recent experience of the persistent failures of storm water controls along the I-95 and Beltway is just the most glaring example of the need for a higher priority to protect water quality in Federal funded transportation and construction projects. EPA needs to reconsider the wisdom of allowing general permits for transportation agencies with respect to non-point source controls, especially for major transportation projects in the Chesapeake Bay region.

Response

Executive Order 13508 Strategy for Protecting and Restoring the Chesapeake Bay Watershed includes a commitment (pg. 34) to “Ensure that stormwater impacts are minimized as part of environmental review of federal-aid highway projects and other federally-assisted transportation projects”. The Department of Transportation is the lead agency for implementing this commitment.

Comment ID 0587.1.001.013

Author Name: Watts George

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

9. Expectations for Federal Entities

EPA has repeatedly made it clear that there will be "consequences" for jurisdictions that do not develop and/or sufficiently implement watershed implementation plans or meet milestones. EPA's intent is for these "consequences" to be placed on the Bay States and District of Columbia, but in reality most of the consequences will impact point sources and the general public. To date; however, it is still unclear what the consequences will be for federal entities. This question was raised at the October 21, 2010 Principals' Staff Committee meeting in Baltimore, MD. Shawn Garvin, PSC Chair, stated that this was still under discussion and EPA would resolve the issue of consequences for federal entities during the development of the 2-year milestones. Given the significant burden the Chesapeake Bay TMDL will be putting on those affected, including our own industry, the federal government must be held to the same standards as other sectors. It is imperative that this inequity between the requirements for federal entities (including EPA) and everyone else is addressed in the same "equitable" manner that EPA has been touting during this TMDL development process.

Response

EPA agrees that federal lands are subject to the provisions of the TMDL. A statement to that effect is included in Section 10.4 Federal Facilities and Lands (pg. 10-5) "EPA expects federal land owners to be responsible for achieving LA and WLA through actions, programs, and policies that will reduce the release of nitrogen, phosphorous, and sediment (CWA section 313, 33 U.S.C. 1323)." While equitable in terms of expected load reductions, the legal provisions for applying consequences to federal agencies is different than with other sectors due in part to the absence of a waiver of sovereign immunity under the Clean Water Act. Nonetheless, EPA expects to use all available means of enforcing the commitments made by federal land owners in the jurisdiction WIPs including public accountability of progress on two-year milestones and, where appropriate, other enforcement actions including federal facility compliance agreements.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category:

**30. Sediments behind Susquehanna River
Dams**

Pages 2757 – 2763

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

30 - SEDIMENTS BEHIND SUSQUEHANNA RIVER DAMS

Comment ID 0230.1.001.054

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

D. The Conowingo Dam Needs a Management Plan Now

The Conowingo Dam is unlike any other dam in the Chesapeake Bay Watershed. Like a large quasi-BMP, the Dam removes on average approximately 3.5 million pounds of TP and 2 million tons of silt from the river annually. Without the Dam, this load would go directly into the upper Bay and once filled, the load would enter the Bay directly.

According to USGS estimates, the Dam will reach capacity around 2025, roughly at the same time the Bay States are expected to finish installing management measures to meet TMDL nutrient loadings. Once the Dam reaches capacity, the sediment load will likely be deposited in the Bay with serious consequences to Bay living resources, including benthics and grasses.

VAMWA asserted in its December 2009 Comments that because of its unique qualities, including location on the Susquehanna River (critically important in meeting Bay water quality goals), large size/span, and age (built in 1928), the Dam needs a management plan.

VAMWA also suggested that EPA and other federal agencies participate in the on-going regulatory process to re-license the Conowingo Dam at the Federal Energy Regulatory Commission ("FERC"), and echoed United States Senator Cardin's comment in the relicensing proceeding that "...a comprehensive analysis of the threat posed by these sediments is only a first step. Exelon, in coordination with the Chesapeake Bay Program Partnership, should develop an effective sediment management strategy that will control this pollution threat throughout the term of the licensing agreement at a minimum."

EPA's Draft TMDL does what VAMWA cautioned against-it delays a discussion of this important issue until the future. EPA has stated that the Bay TMDL "incorporates the current sediment-trapping capacity of the Conowingo Dam at 55 percent, with nitrogen and phosphorus trapping at 2 percent and 40 percent, respectively," but that if those capacities change based upon a review of future monitoring EPA would consider adjusting Pennsylvania, New York, and Maryland's two-year milestones. [FN101]

VAMWA has no position on what the appropriate approach might be as the Conowingo Dam ages and loses capacity, but we do believe that this is a discussion EPA, the Bay States, and interested stakeholders should be having now. The looming threat that the Conowingo presents to all of our good efforts to reduce nutrients and sediments downstream is too important an issue to push off for a discussion on another day. EPA has erred in not considering it more carefully as a part of the development of the Draft TMDL.

[FN101] Draft TMDL at 10-8.

Response

Thank you for your comments on the topic of sediments behind the dams of the Susquehanna River. The issue of addressing the sediment behind the dams of the Susquehanna River, in particular the Conowingo dam, was brought before the Water Quality Goal Implementation Team and the Principle Steering Committee for the discussion of how to address the future impacts of the dam. Based on the discussions with the Bay stakeholders it was determined to address the current capacity of the dam and to account for changes in the storage capacity in the 2 year milestones. EPA encouraged the states above the Conowingo dam—Maryland, Pennsylvania, and New York—to include this discussion in their Watershed Implementation Plan. At this time there is a sediment task force consisting of multiple stakeholders from Maryland and Pennsylvania that are working on addressing the best approach to sustain the trapping capacity of the dam. The US Army Corps of Engineers is the lead for this sediment taskforce. EPA is an active member of this group. A major interest for the sediment taskforce is the relicensing of the dam. It was determined that as part of the relicensing process the owner of the dam, Exelon, will conduct numerous studies; one of the required studies is an impact study of current sediment input and the trapping capacity of the dam to retain a percentage of the sediment and prevent it from entering the main body of the Bay and potential techniques to remove sediment from behind the dam.

EPA is not able to predict the impact that future BMPs in PA, NY and MD may have on reducing the sediment loads behind the Conowingo dam therefore the WQGIT and PSC determined that the best course was to address this sediment issue in the 2 Year milestones.

EPA did consider catastrophic events and their impact on the Bay in the development of this TMDL. EPA is unable to predict when or where the next catastrophic event will occur. It has been documented that the effect of large scale events that bring large amounts of sediment from behind the dams has a varying impact based on the time of year when the event occurs. Given this information and the potential for sediment reductions as a result of BMPs implemented by Pennsylvania and New York EPA is not basing this TMDL on potential future catastrophic scenarios.

Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets the states' and the District's Chesapeake Bay water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. For this reason, EPA considers the recommendations for the further analysis of the sediment behind the dams not to be relevant to the Bay TMDL, but instead to the implementation of the TMDL.

Comment ID 0272.2.001.017

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

EPA Should Give More Consideration to the Role of the Conowingo Dam

The Conowingo Dam is unlike any other dam in the Chesapeake Bay Watershed. Like a large quasi-BMP, the Dam removes on average approximately 3.5 million pounds of TP and 2 million tons of silt from the river annually. Without the Dam, this load would go directly into the upper Bay and once filled, the load would enter the Bay directly.

According to USGS estimates, the Dam will reach capacity around 2025, roughly at the same time the Bay States are expected to finish installing management measures to meet TMDL nutrient loadings. Once the Dam reaches capacity, the sediment load will likely be deposited in the Bay with serious consequences to Bay living resources, including benthics and grasses.

Response

Please refer to the response to comment 0230.1.001.054.

Comment ID 0272.2.001.018

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

MAMWA urged in its December 2009 Comments that because of its unique qualities--location on the Susquehanna River (critically important in meeting Bay water quality goals), large size/span, and age (built in 1928), the Dam needs a management plan. MAMWA noted that although the problem can be addressed directly in the TMDL by saying that additional controls will be necessary in future years if the dam reaches capacity and is no longer effective at retaining sediments, such an approach would be misleading and irresponsible.

MAMWA also suggested that EPA and other federal agencies participate in the on-going regulatory process to re-license the Conowingo Dam at the Federal Energy Regulatory Commission ("FERC"), and echoed United States Senator Cardin's comment in the relicensing proceeding that "...a comprehensive analysis of the threat posed by these sediments is only a first step. Exelon, in coordination with the Chesapeake Bay Program Partnership, should develop an effective sediment management strategy that will control this pollution threat throughout the term of the licensing agreement at a minimum."

Response

Please refer to the response to comment 0230.1.001.054.

Comment ID 0272.2.001.019

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

EPA's Draft TMDL does what MAMWA cautioned against-it delays a discussion of this important issue until the future. EPA has stated that the Bay TMDL "incorporates the current sediment-trapping capacity of the Conowingo Dam at 55 percent, with nitrogen and phosphorus trapping at 2 percent and 40 percent, respectively," but that if those capacities change based upon a review of future monitoring EPA would consider adjusting Pennsylvania, New York, and

Maryland's two-year milestones.[FN27]

MAMWA has no position on what the appropriate approach might be as the Conowingo Dam ages and loses capacity, but we do believe that this is a discussion EPA, the Bay States, and interested stakeholders should be having now. The looming threat that the Conowingo presents to all of our good efforts to reduce nutrients and sediments downstream is too important an issue to push off for a discussion on another day. EPA has erred in not considering it more carefully as a part of the development of the Draft TMDL.

[FN27] Draft TMDL at 10-8.

Response

Please refer to the response to comment 0230.1.001.054.

Comment ID 0288.1.001.035

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

The Conowingo Dam Needs a Management Plan Now

The Conowingo Dam is unlike any other dam in the Chesapeake Bay Watershed. Like a large quasi-BMP, the Dam removes on average approximately 3.5 million pounds of TP and 2 million tons of silt from the river annually. Without the Dam, this load would go directly into the upper Bay and once filled, the load would enter the Bay directly.

According to USGS estimates, the Dam will reach capacity around 2025, roughly at the same time the Bay States are expected to finish installing management measures to meet TMDL nutrient loadings. Once the Dam reaches capacity, the sediment load will likely be deposited in the Bay with serious consequences to Bay living resources, including benthics and grasses.

VAMWA asserted in its December 2009 Comments that because of its unique qualities, including location on the Susquehanna River (critically important in meeting Bay water quality goals), large size/span, and age (built in 1928), the Dam needs a management plan.

VAMWA also suggested that EPA and other federal agencies participate in the on-going regulatory process to re-license the Conowingo Dam at the Federal Energy Regulatory Commission ("FERC"), and echoed United States Senator Cardin's comment in the relicensing proceeding that "...a comprehensive analysis of the threat posed by these sediments is only a first step. Exelon, in coordination with the Chesapeake Bay Program Partnership, should develop an effective sediment management strategy that will control this pollution threat throughout the term of the licensing agreement at a minimum."

EPA's Draft TMDL does what VAMWA cautioned against-it delays a discussion of this important issue until the future.

EPA has stated that the Bay TMDL "incorporates the current sediment-trapping capacity of the Conowingo Dam at 55 percent, with nitrogen and phosphorus trapping at 2 percent and 40 percent, respectively," but that if those capacities change based upon a review of future monitoring EPA would consider adjusting Pennsylvania, New York, and Maryland's two-year milestones.[FN101]

VAMWA has no position on what the appropriate approach might be as the Conowingo Dam ages and loses capacity, but we do believe that this is a discussion EPA, the Bay States, and interested stakeholders should be having now. The looming threat that the Conowingo presents to all of our good efforts to reduce nutrients and sediments downstream is too important an issue to push off for a discussion on another day. EPA has erred in not considering it more carefully as a part of the development of the Draft TMDL.

[FN101] Draft TMDL at 10-8.

Response

Please refer to the response to comment 0230.1.001.054 for EPA's response to the sediments behind the dams of the Susquehanna River.

Comment ID 0444.1.001.004

Author Name: Allen Paul

Organization: Constellation Energy

As a partner in the Safe Harbor Water Power Corporation, located in Pennsylvania, Constellation has a vested interest in how sediments and associated nutrients that settle in the reservoirs behind hydroelectric dams are managed in the Draft TMDL. Accumulation of materials behind the dams is inevitable and serves to minimize downstream transport. EPA has taken this into account in the Draft TMDL (Draft TMDL Section 10.6). Some stakeholders suggested at the October 13, 2010 public meeting in Annapolis, MD that the loadings should account for a potential dam failure or extreme storm event that would release sediments and nutrients downstream. The dams are not the source of the sediments, upstream sources are. EPA has made provisions in the Draft TMDL for the respective states to adjust their allocations from upstream sources should the ability of the dams to trap nutrients and sediments change over time (Draft TMDL Section 10.6). Including a potential catastrophic failure of one or more of the dams is not appropriate and we encourage EPA not to stray from its current approach with regard to dams and a final TMDL.

Response

Thank you for your comments and support of EPA's approach to addressing sediment behind the dams on the Susquehanna River.

Comment ID 0548.1.001.003

Author Name: Smith Brooks

Organization: Utility Water Act Group

2. UWAG supports EPA's approach to hydroelectric dams.

The Bay TMDL acknowledges that "dams along the lower Susquehanna River are a significant factor influencing nitrogen, phosphorus, and sediment loads to the Bay because they retain large quantities of sediment and phosphorus, and some nitrogen, in their reservoirs." See Bay TMDL at 10-7. UWAG believes that it is appropriate for EPA to identify the benefits of these dams on downstream water quality.

UWAG is aware that other commenters have asked EPA to manage these dams through the TMDL. The dams are not sources of continuing load or loading to the Bay watershed. Rather, the dams have the effect of controlling or reducing upstream load or loading. Some commenters have posited that failure of the dams would result in catastrophic downstream impacts and, for this reason, the dams should be subject to either the wasteload or load allocation. However, the TMDL program is not designed to address contingent loading and there is nothing in the statute or regulations to account for such loading. Regulating the contingent impacts from the failure of a dam would be as absurd and unfounded as regulating the contingent impacts from an upset, failure, or event of noncompliance at a wastewater treatment plant. We support EPA's approach to the dams as set forth in the draft TMDL.

Response

Thank you for your comments and support of EPA's approach to addressing sediment behind the dams on the Susquehanna River.

Comment ID 0571.1.001.018

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

a. Appendix T Does Not Adequately Address the Risks from the Conowingo Dam

The discussion in Appendix T makes some remarkable claims and leaves out some very important parts of the discussion related to Conowingo Dam. Upon Conowingo Dam reaching its sediment holding capacity in 15-20 years (precisely at the end of the Bay TMDL), the sediment and phosphorus loads from the Susquehanna will increase significantly to the Bay: 250% for sediment, 70% for phosphorus, and 2% for nitrogen[FN 37]. If Conowingo Dam ever reaches capacity near the end of the TMDL, the entire multi-billion dollar investment that the states have made in restoring Chesapeake Bay will be lost forever.

EPA's discussion on page T-5 dismisses this risk by stating that "EPA's intention is to assume the current trapping capacity of the dam will continue through the planning horizon for the TMDL (2025)." The possibility of reaching the dam's capacity during the TMDL is very real, and to address this risk would take another large investment of money. Page T-4 provides an estimate of nearly \$50 million per year to dredge out enough sediment to keep up with their

delivery from the Susquehanna River. EPA has not addressed the potential for a large storm with winds from the "right" direction to scour the sediments and send them over the dam. The risk of such a calamity increases each year of the TMDL as the sediment level climbs upward behind the Conowingo Dam. In fact, as EPA washes its hands of all responsibility for the risk of failure that this situation might bring to the TMDL program in Chesapeake Bay, the agency plans to punish the downstream states in a case where "the trapping capacity of the dam is reduced, then EPA would consider adjusting the Pennsylvania, Maryland and New York 2-year milestone loads based on the new delivery loads."

Prior to the effective date for the Bay TMDL, EPA, the U.S. Army Corps of Engineers and the Chesapeake Bay states should jointly hold a public meeting to discuss and seek a solution on this very real risk to the Chesapeake Bay Restoration Program. As EPA is aware, this is not just a money issue or even simply a risk of catastrophic failure of the TMDL. The STAC Workshop in May 2000 on "The Impact of Susquehanna Sediments on the Chesapeake Bay" found that the consequences that will result as sediment nears the lip of the dam include: (1) increased phosphorus in the Middle Bay; (2) an increased need for dredging navigation channels in the Upper Bay; (3) higher turbidity and faster sedimentation everywhere in the Bay, but especially in the navigation channels; (4) adverse effects on the recovery of submerged aquatic vegetation; (5) impacts to benthic organisms; and (6) impacts to fish. Without massive amounts of money spent to address the sediment pile up behind the Conowingo Dam, the listed impacts could begin to appear in Chesapeake Bay towards the end of the TMDL (2025), even after the Bay states spending billions of dollars to reduce their pollutant loadings to the Bay.

[FN 37] Langland and Hainly, 1997. Changes in Bottom-Surface Elevations in Three Reservoirs on the Lower Susquehanna River, Pennsylvania and Maryland, Following the January 1996 Flood - Implications for Nutrient and Sediment Loads to Chesapeake Bay. U.S. Geological Survey Water Resources Investigations Rept. 97-4138. U.S. Geological Survey, Washington, DC.

Response

Please see comment 0230.1.001.054 for EPA's response to the sediments behind the dams of the Susquehanna River.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 31. Filter Feeders

Pages 2764 – 2788

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

31 - FILTER FEEDERS

Comment ID 0230.1.001.038

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

J. Filter feeders and menhaden offer another means to address chlorophyll-a compliance on the James River

We support EPA's efforts to consider the role of Atlantic menhaden in relation to management of chlorophyll-a. Recent modeling work has shown that their migration into the tributaries and associated consumption of algae has the potential to affect chlorophyll-a and associated compliance with the standards. We agree with the statement included in TMDL Appendix U "Although the influence of menhaden on water quality is estimated to be less than that of oyster filter feeders, even a small percentage of nutrient assimilation or chlorophyll reduction in the Chesapeake Bay would ease the pressure in meeting 2-year milestones." Menhaden stocks do not dramatically reduce chlorophyll as long term averages but their incremental effects are considered comparable to nutrient reduction.

HRSD recommends that additional analyses be conducted to evaluate menhaden effects on seasonal peaks and/or worst years in the record. Further, additional modeling enhancements need to address menhaden migration and residence time variability according to a food gradient. A number of papers indicate that menhaden consumption of algae increases in areas with higher chlorophyll-a. This is logical because the species would remain longer in an area with greater availability of food. Because the model does not presently capture these foraging effects the available reductions in chlorophyll due to menhaden (especially during bloom conditions) would be under-estimated.

Response

Please refer to the response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0230.1.001.051

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

A. EPA's Failure to Explicitly Include Filter Feeders and Alternative Technologies in the Bay TMDL is Unreasonable

In its December 2009 Comments, VAMWA made recommendations regarding how EPA should include filter feeders in the Bay TMDL. VAMWA explained that various studies and the Bay Program's own modeling efforts have demonstrated that increase biomass of oysters and menhaden have the potential to cause measureable improvements in dissolved oxygen, water clarity, and chlorophyll-a. Improvements in these living resources are among the Bay partner's most important goals, and their water quality benefits should be fully considered in the TMDL process. VAMWA suggested that EPA either (a) adopt nutrient and sediment loading caps that implicitly consider the benefits of filter feeder

improvements; (2) explicitly assign a certain proportion of the required load reduction to filter feeder restoration; or (3) allow filter feeder restoration to result in the availability of nutrient credits to offset other sources.

EPA ignored these recommendations in the Draft TMDL, choosing instead to note that:

EPA is basing the TMDL on the current assimilative capacity of filter feeders at existing populations built into the calibration of the oyster filter feeding submodel...Potential future changes would not be accounted for in the Bay TMDL. If future monitoring data indicate an increase in the filter feeder population, the appropriate jurisdiction's 2-year milestones delivered load reductions can be adjusted accordingly....[FN98]

EPA's decision is inappropriate. Oyster farming and aquaculture show real promise. In mid- October, 2010, several news outlets reported the formation of the State's first oyster cooperative, Oyster Company of Virginia. A private company formed a cooperative that will allow Virginia's watermen to lease bottomland from Virginia, plant, grow, harvest and sell oysters. Profits will be plowed back to fuel the endeavor. Although this is project is small in scope at this point, it is an important first step, and an excellent example of what Virginians could do to foster aquaculture. These types of efforts should be considered as a part of this TMDL. [FN99]

In addition, HRSD reiterates the support we included in our December 2009 Comments with regard to EPA's efforts to consider the role of Atlantic menhaden in relation to management of chlorophyll-a. Recent modeling work has shown that their migration into the tributaries and associated consumption of algae has the potential to affect chlorophyll-a and associated compliance with the standards. Although menhaden stocks do not appear to dramatically reduce chlorophyll (as long term averages) their incremental effects are considered comparable to nutrient reduction. HRSD recommends that additional analyses be conducted to evaluate menhaden effects on seasonal peaks and/or worst years in the record. Further, additional modeling enhancements should be made such that the menhaden migration and residence time varies according to a food gradient. A number of papers indicate that menhaden consumption of algae increases in areas with higher chlorophyll-a. This is logical since the species would remain longer in an area with greater availability of food. Because the model does not presently capture these foraging effects the available reductions in chlorophyll due to menhaden (especially during bloom conditions) could be under-estimated.

In addition to filter feeders, VAMWA also recommended that some portion of future reductions needed to meet water quality goals should be assigned to technological advancements, such as the Algal Turf Scrubber® ("ATS") and floating wetlands. Although VAMWA acknowledged these alternative technologies may not be ready for full deployment Bay-wide, VAMWA recommended that EPA acknowledge and encourage their possible future use in the Bay TMDL, including assisting with funding, to encourage research and development. Spending money on research that could make a major dent in clean-up efforts is far preferable to spending money to squeeze minimal reductions from POTW loadings.

EPA also ignored these recommendations in the Draft TMDL. EPA has established an extraordinarily aggressive approach in its Draft TMDL, but it has not left any room for the natural progression of technology-technology that could greatly assist in making nutrient and sediment reductions in lieu of expensive additional POTW upgrades.

For these reasons, EPA should revise its Draft TMDL to assign some portion of future reductions to filter feeders and alternative technologies.

[FN98] Draft TMDL at 10-8.

[FN99] Note that, according to news reports, the cooperative "...plans to lobby state and federal officials to include their efforts in the "pollution diet" the U.S. Environmental Protection Agency is drafting for the bay." Daily Press, Oct. 13, 2010 (attached hereto as Appendix 50).

Response

At the time of publication of the Bay TMDL, EPA cannot make management decisions on the potential future increase of filter feeders in the Bay. This topic was presented to both the Water Quality Goal Implementation Team and the Principle Steering Committee for decision in April 2010 on how to include filter feeders into the TMDL document. While there has been a significant effort invested by organizations in Maryland and Virginia in restoring the oyster population of the Bay, to date there has not been large increases in population numbers due to the challenges faced by disease and lack of suitable substrate for oysters in the Bay. EPA, based on agreement from the partners on the WQGIT and the PSC determined that until we can document increased population numbers of filter feeders in the Bay that there should be no assumptions made within the Bay TMDL on potential future populations. EPA did agree to consider accounting future population growth within the 2-year milestones if a jurisdiction is able to provide for contingency reductions if there is not a significant population increase to account for nutrient reductions. EPA encourages organizations to continue to work to increase filter feeder populations which are historically known for their ability to filter nutrients.

The Chesapeake Bay Program has a published mechanism for incorporating new technologies and practices in the Bay Watershed Model. The Chesapeake Bay Program partnership's protocol is available at <http://www.chesapeakebay.net/marylandbmp.aspx?menuitem=34449>.

There have been varying results from scientific studies on the benefits of menhaden in regards to pollutant reduction. As noted in your comments it is variable the amount of reductions menhaden provide and there is not solid scientific evidence that shows the nutrient removal potential during times of high chlorophyll a. Menhaden are a migratory species so it is difficult to calculate their population in the Bay at a given time. Scientific studies also note that the ability to filter chlorophyll a depends on the age class of the menhaden present in the Bay.

Large numbers of menhaden are removed from the Bay on a yearly basis for commercial harvesting which may impact the nutrient removal abilities depending on the time of year they are harvested. Also you note in your comments that menhaden may be present during time of high chlorophyll a and filtering large amounts of nutrients from the Bay water. However, one must also consider that the increased feeding also leads to an increase in the amount of waste produced from the fish, which may negate the impact of their filter feeding.

Further, EPA reminds the commenter that we are under legal obligation to establish a TMDL that meets water quality standards. This requires EPA to establish the loadings necessary to meet water quality standards given reasonable assurance that standards will be achieved. For this reason, EPA considers the recommendations for the further analysis of filter feeder populations, their impact on improving water quality, and technological advancements not to be relevant to the TMDL, but instead to the implementation of the TMDL.

Comment ID 0265.1.001.014

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

Finally, given the immense costs and difficulty of attaining the urban runoff sector allocations, it is remarkable that the TMDL reflects so little interest on the part of EPA in seriously considering and pursuing additional, more cost-effective opportunities to achieve the basin-wide allocations. While assigning allocations to load reductions attributable to filter feeders such as oysters and menhaden would not provide reasonable assurance that the urban runoff sector allocations can be achieved, it would provide some relief to the impossible burden that the TMDL would impose on the Localities.

Response

EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay. Please see response to comment 0139.1.001.017

Comment ID 0272.2.001.014

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

EPA's Should Revise the TMDL Based on Consideration of Filter Feeders and Alternative Technologies in the Bay TMDL

In its December 2009 Comments, MAMWA made recommendations regarding how EPA should include filter feeders in the Bay TMDL. MAMWA explained that various studies and the Bay Program's own modeling efforts have demonstrated that increase biomass of oysters and menhaden have the potential to cause measureable improvements in dissolved oxygen, water clarity, and chlorophyll-a. Improvements in these living resources are among the Bay partner's most important goals, and their water quality benefits should be fully considered in the TMDL process. MAMWA suggested that EPA either (a) adopt nutrient and sediment loading caps that implicitly consider the benefits of filter feeder improvements; (2) explicitly assign a certain proportion of the required load reduction to filter feeder restoration; or (3) allow filter feeder restoration to result in the availability of nutrient credits to offset other sources.

EPA ignored these recommendations in the Draft TMDL, choosing instead to note that:

EPA is basing the TMDL on the current assimilative capacity of filter feeders at existing populations built into the calibration of the oyster filter feeding submodel...Potential future changes would not be accounted for in the Bay TMDL. If future monitoring data indicate an increase in the filter feeder population, the appropriate jurisdiction's 2-year

milestones delivered load reductions can be adjusted accordingly.... [FN25]

EPA's decision is inappropriate. Oyster farming and aquaculture show real promise. In mid-October, 2010, several news outlets reported the formation of a new oyster cooperative in Virginia, the Oyster Company of Virginia. A private company formed a cooperative that will allow Virginia's watermen to lease bottomland from Virginia, plant, grow, harvest and sell oysters. Profits will be plowed back to fuel the endeavor. In addition, Maryland has been very aggressively approaching aquaculture. According to a recent AP story, Maryland Governor O'Malley recently announced \$2.2 billion in loans for oyster aquaculture in FY11. The State's efforts are a follow-up to the development of a oyster restoration plan. Efforts in Virginia and Maryland are not hypothetical-they are actually happening on the ground. They should be considered as a part of this TMDL. [FN26]

In addition to filter feeders, MAMWA also recommended that some portion of future reductions needed to meet water quality goals should be assigned to technological advancements, such as the Algal Turf Scrubber ("ATS") and floating wetlands. Although MAMWA acknowledged these alternative technologies may not be ready for full deployment Bay-wide, MAMWA recommended that EPA acknowledge and encourage their possible future use in the Bay TMDL, including assisting with funding, to encourage research and development. Spending money on research that could make a major dent in clean-up efforts is far preferable to spending money to squeeze minimal reductions from POTW loadings.

EPA also ignored these recommendations in the Draft TMDL. EPA has established an extraordinarily aggressive approach in its Draft TMDL, but it has not left any room for the natural progression of technology-technology that could greatly assist in making nutrient and sediment reductions in lieu of expensive additional POTW upgrades.

For these reasons, MAMWA opposes these aspects of EPA's Draft TMDL. EPA should revise its Draft TMDL to assign some portion of future reductions to filter feeders and alternative technologies.

[FN25] Draft TMDL at 10-8.

[FN26] Note that, according to news reports, the cooperative "...plans to lobby state and federal officials to include their efforts in the "pollution diet" the U.S. Environmental Protection Agency is drafting for the bay." Daily Press, Oct. 13, 2010.

Response

Please refer to the response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0288.1.001.032

Author Name: Pomeroy Christopher

Organization: Virginia Association of Municipal Wastewater Agencies, Inc. (VAMWA)

A. EPA's Failure to Explicitly Include Filter Feeders and Alternative Technologies in the Bay TMDL is Unreasonable

In its December 2009 Comments, VAMWA made recommendations regarding how EPA should include filter feeders in the Bay TMDL. VAMWA explained that various studies and the Bay Program's own modeling efforts have demonstrated that increase biomass of oysters and menhaden have the potential to cause measureable improvements in dissolved oxygen, water clarity, and chlorophyll-a. Improvements in these living resources are among the Bay partner's most important goals, and their water quality benefits should be fully considered in the TMDL process. VAMWA suggested that EPA either (a) adopt nutrient and sediment loading caps that implicitly consider the benefits of filter feeder improvements; (2) explicitly assign a certain proportion of the required load reduction to filter feeder restoration; or (3) allow filter feeder restoration to result in the availability of nutrient credits to offset other sources.

EPA ignored these recommendations in the Draft TMDL, choosing instead to note that:

EPA is basing the TMDL on the current assimilative capacity of filter feeders at existing populations built into the calibration of the oyster filter feeding submodel...Potential future changes would not be accounted for in the Bay TMDL. If future monitoring data indicate an increase in the filter feeder population, the appropriate jurisdiction's 2-year milestones delivered load reductions can be adjusted accordingly....[FN98]

EPA's decision is inappropriate. Oyster farming and aquaculture show real promise. In mid-October, 2010, several news outlets reported the formation of the State's first oyster cooperative, Oyster Company of Virginia. A private company formed a cooperative that will allow Virginia's watermen to lease bottomland from Virginia, plant, grow, harvest and sell oysters. Profits will be plowed back to fuel the endeavor. Although this is project is small in scope at this point, it is an important first step, and an excellent example of what Virginians could do to foster aquaculture. These types of efforts should be considered as a part of this TMDL.[FN99]

In addition, VAMWA reiterates the support we included in our December 2009 Comments with regard to EPA's efforts to consider the role of Atlantic menhaden in relation to management of chlorophyll-a. Recent modeling work has shown that their migration into the tributaries and associated consumption of algae has the potential to affect chlorophyll-a and associated compliance with the standards. Although menhaden stocks do not appear to dramatically reduce chlorophyll (as long term averages) their incremental effects are considered comparable to nutrient reduction. VAMWA recommends that additional analyses be conducted to evaluate menhaden effects on seasonal peaks and/or worst years in the record. Further, additional modeling enhancements should be made such that the menhaden migration and residence time varies according to a food gradient. A number of papers indicate that menhaden consumption of algae increases in areas with higher chlorophyll-a. This is logical since the species would remain longer in an area with greater availability of food. Because the model does not presently capture these foraging effects the available reductions in chlorophyll due to menhaden (especially during bloom conditions) could be under-estimated.

In addition to filter feeders, VAMWA also recommended that some portion of future reductions needed to meet water quality goals should be assigned to technological advancements, such as the Algal Turf Scrubber® ("ATS") and floating wetlands. Although VAMWA acknowledged these alternative technologies may not be ready for full deployment Bay-wide, VAMWA recommended that EPA acknowledge and encourage their possible future use in the Bay TMDL, including assisting with funding, to encourage research and development. Spending money on research that could make a major dent in clean-up efforts is far preferable to spending money to squeeze minimal reductions from POTW loadings.

EPA also ignored these recommendations in the Draft TMDL. EPA has established an extraordinarily aggressive approach in its Draft TMDL, but it has not left any room for the natural progression of technology-technology that could greatly assist in making nutrient and sediment reductions in lieu of expensive additional POTW upgrades.

For these reasons, EPA should revise its Draft TMDL to assign some portion of future reductions to filter feeders and alternative technologies.

[FN98] Draft TMDL at 10-8.

[FN99] Note that, according to news reports, the cooperative...plans to lobby state and federal officials to include their efforts in the "pollution diet" the U.S. Environmental Protection Agency is drafting for the bay. Daily Press, Oct. 13, 2010 (attached hereto as Appendix 50). [Comment Letter contains additional information in the form of an attachment. See original comment letter 0288.A50]

Response

Please refer to comment ID 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0293.1.001.024

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

EPA's Failure to Explicitly Include Filter Feeders and Alternative Technologies in the Bay TMDL is Unreasonable

Various studies and the Bay Program's own modeling efforts have demonstrated that increase biomass of oysters and menhaden have the potential to cause measureable improvements in dissolved oxygen, water clarity, and chlorophyll-a. Improvements in these living resources are among the Bay partner's most important goals, and their water quality benefits should be fully considered in the TMDL process. VAMSA suggests that EPA either (a) adopt nutrient and sediment loading caps that implicitly consider the benefits of filter feeder improvements; (2) explicitly assign a certain proportion of the required load reduction to filter feeder restoration; or (3) allow filter feeder restoration to result in the availability of nutrient credits to offset other sources.

EPA's Draft TMDL is inconsistent with these recommendations in the Draft TMDL:

EPA is basing the TMDL on the current assimilative capacity of filter feeders at existing populations built into the calibration of the oyster filter feeding submodel...Potential future changes would not be accounted for in the Bay TMDL. If future monitoring data indicate an increase in the filter feeder population, the appropriate jurisdiction's 2-year milestones delivered load reductions can be adjusted accordingly....[FN40]

EPA's decision is inappropriate. Oyster farming and aquaculture show real promise. In mid-October, 2010, several news outlets reported the formation of the State's first oyster cooperative, Oyster Company of Virginia. A private company formed a cooperative that will allow Virginia's watermen to lease bottomland from Virginia, plant, grow, harvest and sell oysters. Profits will be plowed back to fuel the endeavor. Although this project is small in scope at this point, it is an important first step, and an excellent example of what Virginians could do to foster aquaculture. These types of efforts should be considered as a part of this TMDL.[FN41]

In addition, VAMSA supports EPA's efforts to consider the role of Atlantic menhaden in relation to management of chlorophyll-a. [FN42] Recent modeling work has shown that their migration into the tributaries and associated consumption of algae has the potential to affect chlorophyll-a and associated compliance with the standards. Although menhaden stocks do not appear to dramatically reduce chlorophyll (as long term averages) their incremental effects are considered comparable to nutrient reduction. VAMSA recommends that additional analyses be conducted to evaluate menhaden effects on seasonal peaks and/or worst years in the record. Further, additional modeling enhancements should be made such that the menhaden migration and residence time varies according to a food gradient. A number of papers indicate that menhaden consumption of algae increases in areas with higher chlorophyll-a. This is logical since the species would remain longer in an area with greater availability of food. Because the model does not presently capture these foraging effects the available reductions in chlorophyll due to menhaden (especially during bloom conditions) could be under-estimated.

In addition to filter feeders, VAMSA also recommends that some portion of future reductions needed to meet water quality goals should be assigned to technological advancements, such as the Algal Turf Scrubber® ("ATS") and floating wetlands. Although these alternative technologies may not be ready for full deployment Bay-wide, EPA should acknowledge and encourage their possible future use in the Bay TMDL, including assisting with funding, to encourage research and development. Spending money on research that could make a major dent in clean-up efforts is far preferable to spending money on expensive MS4 retrofits.

EPA has established an extraordinarily aggressive approach in its Draft TMDL, but it has not left any room for the natural progression of technology-technology that could greatly assist in making nutrient and sediment reductions in lieu of expensive additional POTW upgrades.

For these reasons, EPA should revise its Draft TMDL to assign some portion of future reductions to filter feeders and alternative technologies.

[FN40] Draft TMDL at 10-8.

[FN41] Note that, according to news reports, the cooperative "...plans to lobby state and federal officials to include their efforts in the "pollution diet" the U.S. Environmental Protection Agency is drafting for the bay." Daily Press, Oct. 13, 2010. Attached as Appendix 15 [Comment Letter refers to additional information in the form of an attachment. See comment 0582.1.001.001]).

[FN42] See also discussion of menhaden at Appendix 13 (referenced in Section VI(A) above) [Comment letter contains additional information in the form of an attachment. See comment 0575, 0576, 0577, 0578, 0579].

Response

Please refer to the response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0376.1.001.028

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

Awarding Credits for Alternative Projects Must be Supported by Sound Science.

VMA supports EPA's willingness to give credit to Virginia for alternative projects to reduce nitrogen and phosphorus. Allowing such credits will foster creativity in achieving the water quality goals for the Bay. However, such credit should only be awarded where the available science supports the expected benefit.

For example, Appendix U provides that if states can show a change in the population of filter feeders (menhaden and Eastern oysters), then the state would receive a credit towards reaching the EPA's two-year milestone. However, EPA's assumptions about the role of menhaden conflicts with the available science.

During 2008 and 2009, researchers at the Virginia Institute of Marine Science (VIMS) conducted a study to assess the efficacy of menhaden behavior to remove nitrogen from the waters of the Chesapeake Bay through consumption of phytoplankton (Lynch et al 2010). While menhaden do filter large amounts of water and take phytoplankton particles into their mouths, it is not clear that they remove sufficient phytoplankton from the water to offset the introduction of nitrogenous products from anthropogenic sources.

VIMS' research, involving tank feeding studies, found that age 0, or young-of-the-year (juvenile) menhaden do consume measurable amounts of phytoplankton through their filter feeding behavior. This is consistent with research by Friedland et al. (2006) who found that the branchiospinules (sieving apparatus) inside the menhaden's gill chamber was small enough in age 0 fish to retain particles the size of most of the phytoplankton occurring in Chesapeake Bay. However, those researchers also found that as the juvenile fish grow, at approximately age 1, their sieving apparatus also grows to the point that most of the small phytoplankton particles are not retained. This finding is also consistent with the Lynch et al (2010) study that found that adult (age 1+) menhaden eat mostly zooplankton. Finally, Lynch and his colleagues found that all menhaden excrete large amounts of ammonia-N, a nitrogenous product that is more bio-available than the nitrogen from runoff. This finding is consistent with previous work by Oviatt et al. (1972). This excretion, around 60% of menhaden's total food intake, offsets the amount of phytoplankton consumed by age 0 fish and the small amount of phytoplankton consumed by age 1+ fish.

Atlantic menhaden are migratory along the Atlantic coast from Florida to Nova Scotia and constitute a single genetic population. Management of Atlantic menhaden is accomplished through the Atlantic States Marine Fisheries Commission, an interstate fishery management body that recognizes that migratory fish populations cannot be effectively managed by individual state action, but must be managed through coordinated interstate action. No single state could enact any fisheries provisions that would have a measurable impact on the status of the coast-wide

population that could be attributable to that state's action. The only state that allows a large reduction fishery is Virginia. Other states only allow small amounts of bait fishing for menhaden. It would be impossible for EPA to evaluate programs at the state level and conclude that any state did anything that resulted in increasing the menhaden population, even if they did have a significant impact on reducing nitrogen, which they do not, as evidenced by the research cited above.

It should also be noted that the Lynch et al. (2010) study found that zooplankton is the most significant consumer of phytoplankton in Chesapeake Bay. Recognizing that menhaden are a significant predator of zooplankton, it is likely that a large presence of menhaden in the Chesapeake Bay would negatively impact the ability of zooplankton to remove phytoplankton. This fact, along with menhaden's prodigious excretion rate of ammonia-N, leads to the conclusion that a large presence of menhaden in Chesapeake Bay will have an overall negative impact on nutrient removal.

EPA should review the available studies before agreeing to provide credit for nutrient reductions on the basis of menhaden serving as filter feeds. A listing of recent studies on this topic is provided below:

Lynch, P.O., MJ. Brush, E.D. Condon, and R.J. Latour. Net removal of nitrogen through ingestion of phytoplankton by Atlantic Menhaden, *Brevoortia tyrannus* in Chesapeake Bay. *Mar Ecol Prog Ser*, Vo1. 401: 195-209,2010.

Oviatt, C. A., A. L. Gall, S. W. Nixon. 1972. Environmental Effects of Atlantic Menhaden on Surrounding Waters. *Chesapeake Science*, Vol. 13, No.4, (Dec., 1972), pp. 321-323.

Friedland, K.D., D.W. Ahrenholz, J.W. Smith, M. Manning, and J. Ryan. Sieving Functional Morphology of the Gill Raker Feeding Apparatus of Atlantic Menhaden. *Journal of Experimental Zoology*: 305A: 974-985 (2006).

Response

Please refer to the response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0436.1.001.014

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

Finally, given the immense costs and difficulty of attaining the urban runoff sector allocations, it is remarkable that the TMDL reflects so little interest on the part of EPA in seriously considering and pursuing additional, more cost-effective opportunities to achieve the basin-wide allocations. While assigning allocations to load reductions attributable to filter feeders such as oysters and menhaden would not provide reasonable assurance that the urban runoff sector allocations can be achieved, it would provide some relief to the impossible burden that the TMDL would impose on the Localities.

Response

Please refer to the response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0496.1.001.011

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

Finally, given the immense costs and difficulty of attaining the urban runoff sector allocations, it is remarkable that the TMDL reflects so little interest on the part of EPA in seriously considering and pursuing additional, more cost-effective opportunities to achieve the basin-wide allocations. While assigning allocations to load reductions attributable to filter feeders such as oysters and menhaden would not provide reasonable assurance that the urban runoff sector allocations can be achieved, it would provide some relief to the impossible burden that the TMDL would impose on the Localities.

Response

Please see comment ID 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0515.1.001.027

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

G. Focus on "alternative" BMPs, sustainable approaches, and developing technologies to improve the Bay, including:

1. prevent over-fishing of filter feeders or other "looting" of the Bay's ecosystems by commercial fishing and harvesting operations; if necessary, require a permitting and reporting system so that the status of harvesting limits can be monitored and enforced on a federal level, and
2. investigate development of algae-channels and other algae-based technologies for use as in-stream and in-Bay nutrient removal strategies as well as renewable energy sources; use R&D emphasis to make technology transferable to WWTPs and other nutrient sources that have algae issues (see, on-line Comment Docket Comment Attachment #216.1 and <http://articles.baltimoresun.com/2010-09-26/features/bs-gr-algae-nutrients-energy-20100920_1_algae-tiny-aquatic-plants-renewable-energy>)

Response

Please see response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0520.1.001.003

Author Name: Jones Cy

Organization: World Resources Institute

4. Oyster Aquaculture Should Be a Means to Generate Nutrient Credits

The draft TMDL discusses the importance of filter feeders to the Bay, chief among them oysters and menhaden. The Draft Programmatic Environmental Impact Statement for Oyster Restoration in Chesapeake Bay concluded that native oyster aquaculture would be a critical component of restoring the ecosystem services provided by oysters, chiefly filtering of Bay water. WRI recommends that EPA, other relevant federal agencies, and the states assign high priority to oyster restoration and work to facilitate and expand oyster aquaculture in the Bay. The nutrient trading program could play a large role in this expansion and provide additional financial incentives to oyster growers. The nutrient mass in oysters grown in the Bay and then harvested can be directly measured and can form the basis for nutrient credits. Sale of these credits would increase the profit margins for oyster growers and provide an incentive to expand production, resulting in additional filtering capacity and multiple environmental benefits. There is no doubt that much work still needs to be done before oyster-based credits can be certified for the market. EPA should facilitate and support the necessary analysis and seek to bring oysters into the trading program as quickly as possible.

Response

Please see comment ID 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0575.1.001.005

Author Name: Pomeroy Christopher

Organization: Virginia Municipal Stormwater Association, Inc. (VAMSA)

I. Filter feeders and menhaden offer another means to address chlorophyll-a compliance on the James River

These comments support EPA's efforts to consider the role of Atlantic menhaden in relation to management of chlorophyll-a. Recent modeling work has shown that their migration into the tributaries and associated consumption of algae has the potential to affect chlorophyll-a and associated compliance with the standards. VAMSA agrees with the statement included in TMDL Appendix U "Although the influence of menhaden on water quality is estimated to be less than that of oyster filter feeders, even a small percentage of nutrient assimilation or chlorophyll reduction in the Chesapeake Bay would ease the pressure in meeting 2-year milestones." Menhaden stocks do not dramatically reduce chlorophyll as long term averages but their incremental effects are considered comparable to nutrient reduction.

Additional analyses should be conducted to evaluate menhaden effects on seasonal peaks and/or (worst years in the record. Further, additional modeling enhancements need to address menhaden migration and residence time variability according to a food gradient. A number of papers indicate that menhaden consumption of algae increases in areas with

higher chlorophyll-a. This is logical because the species would remain longer in an area with greater availability of food. Because the model does not presently capture these foraging effects the available reductions in chlorophyll due to menhaden (especially during bloom conditions) would be under-estimated.

Response

Please see comment ID 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

Comment ID 0589.1.001.001

Author Name: Jeffreys Kent

Organization: International Council of Shopping Centers (ICSC)

The name "Chesapeake" was derived from the Native American word "Tschiswapeki" which loosely translates as "great shellfish bay." [FN1] Sadly, this name has become a modern misnomer as the current oyster population is estimated to be only one percent of pre-civilization levels.

To the uninformed, it may seem "obvious" that land use changes in the Chesapeake Bay watershed, together with overfishing, are responsible for the decline in oysters. Yet the facts strongly indicate that overharvesting (starting approximately 150 years ago - long before the regional increase in the human population during the 20th Century) and direct habitat destruction by dredging in the Bay are the primary factors and "proximate cause" of the decline in oyster populations.[FN2]

Equally important as we consider the Draft TMDL, the decline in the oyster population is directly responsible for much of the reduced water quality of the Bay itself. It is a well-established scientific fact that the native Eastern oyster (*Crassostrea virginica*) was the keystone species in the Bay. [FN3] In ecological terms, this means that the oyster population was the primary influence over the extent and quality of the Bay's habitat. Removing the oysters directly resulted in a decline in the amount of habitat and a reduction in the water quality available for all other species in the Bay.

Thus, in ecological (as well as legal) terms, EPA's approach to restoring water quality in the Chesapeake Bay has it precisely backwards - reducing the nutrient runoff in the Chesapeake Bay will not result in a restoration of the populations of oysters and other filter feeders and, therefore, cannot achieve overall water quality standards. In contrast, restoration of the oyster population (along with other native filter feeders) will, in fact, result in a reduction of the pollution levels in the Bay. Yet EPA has not produced any estimates of the relative contributions of these critical factors that underpin water quality in the Bay despite a requirement under the applicable law to provide to the public a transparent analysis of all significant causative factors. [For technical analysis, please refer to Appendix A.]

As a result, the Draft TMDL is an arbitrary and capricious Agency action that seeks to improperly impose land use restrictions (directly and indirectly) on State and local jurisdictions and private property owners within the larger Chesapeake Bay watershed.

THE IMPORTANCE OF THE OYSTER

According to the Chesapeake Bay Foundation:

Oysters purify the Chesapeake Bay as they filter the water for their food. An adult oyster can filter as much as 50 gallons of water a day.

Sediment and nitrogen cause problems in Bay waters. Oysters filter these pollutants either by consuming them or shaping them into small packets, which are deposited on the bottom where they are not harmful.

The oysters in the Bay could once filter a volume of water equal to that of the entire Bay (about 19 trillion gallons) in a week. Today, it would take the remaining Bay oysters more than a year. [FN4]

The National Oceanic and Atmospheric Administration agrees:

Oysters are filter feeders, consuming phytoplankton (free-swimming algae) and improving water quality while filtering the water for food. As generations of oysters settle on top of each other and grow they form reefs that provide structured habitat for many fish species and crabs. The Chesapeake Bay was once known for its abundance of oysters. Much of their recent decline was due to decades of overharvest and habitat destruction. More recently two parasitic diseases, MSX and Dermo, have devastated the remaining oyster populations in most areas of the Bay and its tributaries. [FN5]

Yet the impact of oysters on the Bay's ecology was not solely due to their prodigious capacity to filter the water and remove pollutants. Undisturbed oyster beds grew into enormous shell reefs which played a role in the Chesapeake Bay analogous to that of tropical water coral reefs.

Bay oysters used to grow in tall reefs that were much better for the Bay than today's flat oyster beds. The reefs were elevated, which kept oysters above the silty bottom and exposed them to food-rich currents above. The healthy oyster reefs of 100 years ago were so large that they were considered navigational hazards. [FN6]

As can be seen from the following bar graph [FN7], oyster populations were decimated long before the major modern development in urban and suburban areas of the Bay watershed.

[Original Comment letter contains additional information in Table 1 - Chesapeake Bay oyster landings by state, 1880-2008. Please see page 3 of the original letter (Docket ID 0589.1.001).]

In particular, note that the period selected by EPA as the "baseline" for its TMDL modeling corresponds to historically low levels of oysters in the Bay. EPA concedes that all of "The models used to develop the Chesapeake Bay TMDL simulate the same 10-year hydrologic period from 1991 to 2000." [FN8] [Emphasis added]

The current Draft TMDL simply fails to provide sufficient information to the public to determine whether EPA properly understands the role of oysters in the Bay - either in terms of historical importance in the past or potential importance in the future. Yet this information is crucial to the design of any plan to achieve water quality standards for the Bay. Consider this statement on the importance of oysters in the Bay:

The Bay's oyster population has severely declined over the past century due to over-harvesting, which removed huge volumes of oysters. Over-harvesting also led to the demise of the Bay's healthy oyster reefs, which were scraped away by dredging. Oyster beds are now usually limited to a flat, thin layer of dead shells and live oysters spread widely over the Bay's bottom.

These damaged habitats:

- Offer less surface area for oyster spat and other reef-dwelling invertebrates to attach themselves to. This impacts larger fish and blue crabs that live and breed around oyster reefs and prey upon these smaller species.
- Are easily covered by sediment, which smothers live oysters and can eventually bury a damaged reef.

... In addition to harvest pressure, the Bay's oysters face a number of other challenges. One of these is disease. Since the 1950s, the oyster diseases MSX and Dermo have decimated the Bay's remaining oyster population.

The Bay's oysters have also been impacted by poor water quality. [FN9]

Thus, although land use changes during the past 100 years may have had an additional impact on oyster populations in the Bay it is arbitrary and capricious to assume the majority of water quality impairments arise from land use changes, as the current draft TMDL apparently does.

The lack of formal property rights on the original oyster bars of the Chesapeake Bay (and, therefore, the inability of individual oystermen to exclude competitors) led directly to the overharvesting of this resource and a classic "tragedy of the commons" situation.[FN10] It would be ironic if the ecological problems created by this absence of property rights in the Bay itself led EPA to ignore the legitimate property rights of landowners in the surrounding watershed who have fully complied with the laws and regulations of their local jurisdictions for over a century.

In its Draft TMDL EPA indicates that it has considered various scenarios for pollution flowing into the Bay. However, EPA has not provided any estimate for the impact of filter feeders on pollution levels. Filter feeders (primarily oysters) do not play a role in the TMDL calculations despite the fact that their absence is the sine qua non for much, perhaps most, of the nutrient buildup in the Bay. The Draft TMDL acknowledges this failure when it says:

EPA's intention is to base the TMDL on the current population of filter feeders. Potential future population changes would not be accounted for in the TMDL.[FN 11]

It then suggests that future modifications to 2-year milestones for states are possible if they are able to increase the oyster population.[FN12] That is as far as EPA goes in its "analysis" of perhaps the single most important factor for nitrogen, phosphorus, chlorophyll a and dissolved oxygen levels in the Bay. [Please refer to Appendix A]

In other words, EPA has not fully established the cause-and-effect of Bay water quality impairment yet it seeks to impose extremely high costs on landowners and municipalities by requiring them to provide all mitigation efforts. Much of the projected expense of implementing this TMDL would come from new land-based water filtering systems - even as EPA has ignored the historical role played by oysters in maintaining the Bay's water quality. The Draft TMDL asserts

that stormwater runoff is the primary source of impairment of the Bay's ecology when, in fact, prior overharvesting of oysters reduced the natural filtering capacity of the Bay to such an extent that otherwise harmless levels of sediment/nutrients just "sit there" until they can trigger a host of other water quality problems. EPA should be required to calculate a specific level of oyster restoration (or range of possible levels) that must be reached before it imposes Bay-wide TMDL targets for stormwater runoff. Chesapeake Bay water quality levels are too dependent upon the oyster population to ignore the issue to this degree.

Unless and until the oysters are restored to some significant fraction of historical populations the Bay will never return to a balanced, healthy ecosystem. The initial cause of the water quality impairment was overharvesting of oysters and physical destruction of in-Bay habitat - not runoff from commercial and residential development or land-based agricultural practices. Even if the degree to which water quality depends upon oysters is uncertain, EPA cannot provide any reasonable estimate of proportionate responsibility without conducting a detailed and transparent analysis of the oyster population and its historic interaction with the Bay's water quality. Thus far, EPA has failed to conduct this necessary analysis and, therefore, has produced a severely flawed Draft TMDL. Appendix A of these Comments provides a technical analysis by LimnoTech that further addresses EPA's inadequate efforts to incorporate filter feeders in the Draft TMDL.

CONCLUSION

EPA has not demonstrated to what extent the independent decline in the oyster population is responsible for the decrease in dissolved oxygen or the increase in chlorophyll a, nitrogen, phosphorus or sediment. Thus it cannot logically assert any numerical relationship between land-based stormwater run-off and nutrient levels measured in the Bay. Merely mentioning filter feeders in the Draft TMDL is not sufficient to discharge this statutory requirement. To issue a TMDL without first producing these calculations for public review and comment would violate the Administrative Procedures Act (5 U.S.C. 553(c)) and the prohibition against arbitrary and capricious Agency actions (5 U.S.C. § 706(2)(A)).

Therefore, EPA should immediately withdraw its Draft TMDL and reissue it for public comment only after it has concluded the necessary analysis and transparently included those results in its TMDL assumptions.

APPENDIX A

ANALYSIS OF THE ROLE OF FILTER FEEDERS IN THE DRAFT CHESAPEAKE BAY TMDL

The draft Total Maximum Daily Load (TMDL) for total nitrogen (TN), total phosphorus (TP), and sediment in the Chesapeake Bay is deficient because it does not adequately inform the public of the important role that increased stocks of filter feeders could play in establishing and implementing the TMDL. Indeed, Appendix U of the draft TMDL understates the potential benefits of increased stocks of filter feeders because it is incomplete and relies on outdated information.

EPA should revise the draft TMDL to provide updated information about the beneficial impacts of filter feeders using the current Watershed Model and Water Quality Sediment Transport Model (WQSTM). EPA (to our knowledge) has not produced simulations of the benefits of filter feeders using the current models. Even if EPA does not have current model results, EPA should provide the information showing the benefits of filter feeders using previous versions of the models.

This is necessary so that the public can properly review and fully comment on the draft TMDL and the Watershed Implementation Plans (WIPs). For example, EPA should show the public which segments could fully attain water quality standards [FN1] with a modest level of restoration of filter feeders. EPA should provide a simulation to show how a modest level of restoration could reduce the onerous reductions in nutrients and sediment loads required in Scenario E3 [FN2].

EPA should also provide a full and transparent explanation in the draft TMDL as to why none of the scenarios conducted for the TMDL represented filter feeders at populations that are greater than their current levels. Accounting for restoration of filter feeders (not just oysters) as nutrient and sediment loads are reduced, has no less reasonable assurance than other assumptions EPA has employed in the draft TMDL (and for all potential final TMDLs presented by EPA). For example, Scenario E3 should include concerted efforts to restore filter feeders to the maximum extent practicable, even if that means relying on emerging and new technologies[FN 3]. It is unclear why the nutrient load reduction targets for Scenario E3 cannot be different if modest improvements in filter feeders would justify lower nutrient load reductions.

EPA should also acknowledge that additional work is needed to adequately address concerns raised during Chesapeake Bay Program meetings about the effect of filter feeders on nutrient and sediment allocations in the TMDL and the WIPs. This includes ensuring that resources will be directed to adequately determine load reduction adjustments if future monitoring data indicate changes in filter feeder populations during the 2-year milestones. It also means ensuring that data are available, including updated tools, to address these concerns prior to the 2011 and 2017 updates of the TMDL.

Updated information on the benefits of increased stocks of filter feeders would also provide information that could be used to evaluate whether a Use Attainability Analysis (UAA) is needed to determine the highest attainable uses for the Chesapeake Bay and its tidal tributaries. Under the UAA, the economic impact of attaining scenarios like E3 can be considered. EPA was considering the potential need for a UAA until 2009[FN 4, FN 5]. Conducting a UAA would not be a license for "more pollution" or letting hypoxia levels remain at the status quo. Instead, defining the maximum dollars available for restoration in 3-year (not 2-year) increments[FN 6], could result in development of realistic (yet still aggressive) WIPs and more specific (and achievable) milestones for load reductions and ecological restoration. This would allow the federal and state agencies and people that work and live in the Bay watershed to target scarce resources towards programs to maximize ecological and economic benefits, and experiment with new technologies. The UAA would be re-visited every three years during the State's triennial reviews, as required under the Clean Water Act.

It should be noted that a complete review of this issue was difficult within the shortened timeframe of the public comment period [FN7]. Information presented here is not complete, in particular because documentation on the version of the Chesapeake Bay WQSTM used for the draft TMDL is not available.

ADDITIONAL CONSIDERATIONS

A. EPA obviously understands and recognizes the importance and inter-relationships between water quality and filter feeders. The targets (i.e. water quality standards) in the draft TMDL are, in part, to ensure that water quality conditions are sufficient to restore and protect these filter feeders. EPA should therefore document in the TMDL how restoring filter feeders can achieve the same desired water quality in combination with load reductions.

Since 2002, the Chesapeake Bay Program has directed significant resources into developing tools to understand the beneficial impact of restoring filter feeders[FN 8, FN 9]. EPA apparently decided in April 2010 that the benefits of restoring filter feeders could not be considered in the TMDL and that States and the District of Columbia should not be able to count on taking credit for these impacts in their WIPs [FN 10]. This is confusing and at apparent counter-purposes for incorporating the effects of filter feeders in the WQSTM. The developers of the water quality model[FN 11] (WQM) stated:

"Our model agrees with a wide body of evidence that bivalves can modify their local environment. When bivalves are confined to only a small portion of bottom area, their ability to transform an entire estuarine system is limited. In view of the enormous cost and technological difficulties associated with controlling external loads, DO [dissolved oxygen] improvements on the order of tenths of a g m⁻³ [gram per cubic meter] and nitrogen removal on the order of 10% of system loading cannot be disparaged. These improvements have economic and ecological values and are to be encouraged" (Cercio and Noel, 2007, page 341).

EPA and the Chesapeake Bay Program were apparently considering including the effects of enhanced filter feeder (specifically menhaden and oyster) populations in the TMDL until the April 5-6, 2010 Water Quality Goal Implementation Team meeting, when this was abandoned. At this meeting, EPA presented its position that it was "not willing to project increase in population" (see Minutes [FN12] page 14). It should be noted that the tenfold and fifty-fold oyster scenarios with the current models were still pending as of the March 31, 2010 Quarterly Modeling Subcommittee meeting. It would have been interesting to have seen at least some of the WQSTM results in the presentation that EPA used at the April 5-6, 2010 meeting[FN 13].

Section 10.7 of draft TMDL acknowledges that filter feeders play an important role in the uptake of nitrogen and phosphorus. It fails, however, to provide a numeric allocation related to this uptake level. Nor does the draft TMDL acknowledge the benefits of filter feeders in reducing turbidity, particularly as to how the filter feeders can contribute to increases in submerged aquatic vegetation (SAV). The developers of the water quality model state "[o]ur model indicates enhanced SAV abundance is the most significant improvement to be attained through oyster restoration...The effectiveness of oysters in SAV restoration is attributed to the close proximity of oysters to the SAV beds" (Cercio and Noel, 2007, page 340).

Section 10.7 of the draft TMDL also limits discussion to the native Eastern oyster (market size) and menhaden fish. This section does not address the importance of other bivalves that are included in the WQSTM (namely *Corbicula* and *Rangia*) or important filter feeders that are not yet in the model (such as *Macoma balthica* or polychaete *Chaetoperus cf. variopedatus*). The water quality model developers make a compelling case that *Macoma balthica* and *Chaetoperus cf. variopedatus* (deemed OTFF in modeler's lingo) "should be modeled in oligohaline regions throughout the system" and that these two species "can exert substantial control on phytoplankton populations" (Cercio and Noel, 2010, page 1063). The developers further state:

"This activity has significant management implications in view of the attention paid to reducing chlorophyll concentrations via management of nutrient loads. Apart from direct controls on phytoplankton, OTFF contribute indirectly to eutrophication reduction by trapping carbon and nutrients in the upper, oxygenated portions of the estuaries, rather than allowing the material to pass to the lower estuaries where carbon contributes to bottom-water hypoxia and nutrients fuel phytoplankton production which clouds the water and contributes additional organic matter to

the bottom.

Loss of filtering capacity in Chesapeake Bay has been blamed for the eutrophication there (Newell, 1988) and restoration of bivalves is being explored as a management strategy (US Army Engineers, 2008). Restoration focuses primarily on native and exotic oysters (*C. virginica* and *ariakensis*) which have been the subject of extensive studies (Newell et al., 2002; Porter et al., 2004; Cerco and Noel, 2007). Less attention has been devoted to the ecological role of other bivalve filter feeders although these apparently already play a role in eutrophication control. Perhaps the lack of attention is due to the lack of commercial importance of these species. Clearly, the role of OTFF should be included in management models and their importance should be recognized in management activities." (p. 1063)

It should also be noted that there could be localized repercussions of dramatic reductions of nutrient loads. This phenomenon has adversely affected salmon populations in British Columbia and elsewhere[FN 14]. The draft TMDL does not discuss the possibility of local aquatic resources being "starved" of nutrient or sediment loads, if the reductions that are called for are greater than they should be from a local, biological perspective.

Finally, the draft TMDL does not even discuss the oyster management plan adopted by the Chesapeake Bay Program in 2005[FN 15]. The TMDL should have included an alternate TMDL that incorporates the oyster restoration goal (or the oyster management plan should be revised to reflect that EPA does not consider even modest increases in oysters as a realistic management objective).

EPA has not demonstrated in the draft TMDL that it acknowledges that water quality improvements associated with reductions in nutrient and sediment loads will positively affect filter feeder populations, which will then reduce the need for nutrient and sediment load reductions. EPA could have easily produced an alternate TMDL that showed the public the allocations for nutrients and sediments if filter feeders were restored to even a modest level.

B. Appendix U appears to rely on spurious or out-dated information and understates the potential benefit of increasing oyster populations on total nitrogen in the Bay.

Appendix U does not cite the most up-to-date documentation about the filter feeders that are in the current version of the WQSTM that is being used by EPA for the draft TMDL. Appendix U needs to be re-written and re-issued for public review and comment. LimnoTech identified three publications (Cerco and Noel, 2005; Cerco and Noel, 2007; and Cerco and Noel, 2010) that provide more up-to-date and complete information on the incorporation of filter feeders in the WQSTM. These publications show that Appendix U understates the potential benefit of a tenfold increase in oyster populations on reducing the need to obtain the TN load reductions in EPA's draft TMDL.

Appendix U cites a reference to a presentation by Dr. Cerco to the October 2005 Quarterly Meeting of the Chesapeake Bay Program Modeling Subcommittee, where the tenfold increase in native oysters "could remove 10 million pounds of nitrogen annually" (see draft TMDL, page U-2). LimnoTech could not verify this statistic based on Dr. Cerco's presentation or the meeting minutes where he presented this information[FN 16]. The version of the model presented in 2005 is not even the WQSTM that is being used for the TMDL. Nevertheless, 10 million pounds is 5 percent of the total basin/jurisdiction draft allocation of 187.44 million pounds (see draft TMDL, Table ES-1). Five percent is not insignificant when EPA is proposing "Moderate-level backstop allocations" to provide "[a]dditional adjustments to agriculture nonpoint sources as necessary to exactly meet nitrogen, phosphorus and sediment allocations" (see draft TMDL, page x, emphasis added).

The Cerco and Noel 2005 and 2007 publications provide an estimated 30,000 kilograms per day (or 24 million pounds per year) reduction in nitrogen from a tenfold increase in oysters. This is 13 percent of the draft allocation, which is even more significant than five percent.

Finally, as discussed above, Appendix U does not acknowledge the existence and potential benefits of other critical filter feeders in the Bay, such as *Macoma balthica* or polychaete *Chaetoperus cf. variopedatus*.

C. Statements in the "Other Issues of Concern" demonstrate how EPA is being inflexible in its efforts to produce a TMDL to restore the Bay. This inflexibility could have severe economic implications and potential ecological implications.

EPA should not, on one hand say that ecosystem benefits (such as with restoration of oysters) are important and can be counted towards measuring progress towards implementing the TMDL (see Section 4 of draft TMDL, Appendix U). Then on the other hand, say that oyster restoration is akin to "in-stream treatment" and could create a problem meeting local water quality standards in upstream jurisdictions (see Section 6 of the draft TMDL, Appendix U).

At a minimum, EPA should provide the appropriate references for its position on other issues of concern. EPA states "because pollutants are not reduced at or near the source, this strategy [of increasing filter feeder populations] could create a problem with meeting local water quality standards in the upstream jurisdictions" (see draft TMDL, page U-5). EPA needs to clarify this statement and provide information about which local water quality standards would not be met under this scenario.

D. EPA should include a "backstop" TMDL that includes the benefits of modest restoration of all filter feeders.

Accounting for oyster restoration to one-tenth of historical oyster biomass, or a tenfold increase from current estimated conditions, has no less reasonable assurance than other assumptions EPA has employed in the draft TMDL (and for all potential final TMDLs so far presented by EPA). For example, EPA has proposed establishing a TMDL to meet a number of water quality standards (WQSs) restoration variances (proposed and existing), in direct conflict with EPA's own guidance on TMDL development which notes that "States should be aware that a TMDL should be developed to meet the existing WQS, not a temporary variance that is less stringent than the existing WQS"[FN 17]. If EPA is willing to violate its own TMDL guidance, then surely it should also be willing to establish a TMDL based upon a reasonable assumption of oyster restoration in the Chesapeake Bay that is merely uncertain but would not violate TMDL guidance.

A reasonable level of oyster restoration should be assumed in the TMDL and the uncertainty should be dealt with through the appropriate jurisdiction WIPs and subsequent tracking mechanisms through 2-year (or 3-year) milestones, rather than being handed off as strictly an implementation question with uncertain load credits (or debits) to be accounted for by the jurisdictions.

E. EPA needs to ensure that adequate resources, including time and data for WQSTM simulations in which the benefits of filter feeders are included, are provided in subsequent updates of the TMDL.

During the April 5 and 6, 2010 Water Quality Goal Implementation Team meeting, the committee discussed a number of issues related to including filter feeder options in the Bay TMDL. Those minutes state:

- "At 5x current menhaden population we would see bay improvements in chlorophyll-a and D.O., but population cannot be assured
- Current model runs have been done with current populations of menhaden and oysters
- EPA is not willing to project increase in population
- For TMDL purposes, proposing to credit increases in filter feeder population not part of the TMDL but only if a monitored increase is found
- Population generally the same since 1985"

The discussion that follows indicates that there are issues associated with harvesting different classes of oysters and menhaden; issues with assigning "credits" or "debits" when adjusting the TMDL allocations for benefits associated with increased filter feeders; and incentives for obtaining federal funding for restoration. EPA needs to insure that the allocations will be adjusted in the 2011 TMDL update. EPA must also assure stakeholders that adequate federal funding will be provided to insure that the Chesapeake Bay modeling tools are adequate to meet this need for the 2017 update.

References

- Cerco, C.F., Noel, M.R., 2005. Assessing a Ten-Fold Increase in the Chesapeake Bay Native Oyster Population: A Report to the EPA Chesapeake Bay Program. Prepared by the US Army Engineer Research and Development Center, Vicksburg MS. July 2005.
- Cerco, C.F., Noel, M.R., 2007. Can Oyster Restoration Reverse Cultural Eutrophication in Chesapeake Bay? *Estuaries and Coasts*. 30 (2), 331-343.
- Cerco, C.F., Noel, M.R., 2010. Monitoring, modeling, and management impacts of bivalve filter feeders in the oligohaline and tidal fresh regions of the Chesapeake Bay system. *Ecological Modelling*. 221, 1054-1064.

COMMENT FOOTNOTES

- [FN 1] Source: Chesapeake Bay Foundation Fact Sheet. Accessed November 3, 2010 at <http://www.cbf.org/Page.aspx?pid=433>.
- [FN 2] See, for example: "Decline of the Chesapeake Bay Oyster Population: A Century of Habitat Destruction and Overfishing" by B.J. Rothschild, et al., *Marine Ecology Progress Series*, Volume 111: 29-39. 1994.
- [FN 3] U.S. Fish and Wildlife Service Chesapeake Bay Oyster Reef Habitat Initiative web site. Accessed November 5, 2010 at <http://www.fws.gov/chesapeakebay/OysterInitiative.html>.
- [FN 4] Chesapeake Bay Foundation's OYSTER FACT SHEET. Accessed November 3, 2010 at <http://www.cbf.org/Page.aspx?pid=511>.
- [FN 5] Quotation from the NOAA Oyster Reef web page. Accessed November 5, 2010 at <http://chesapeakebay.noaa.gov/oysters/oyster-reefs>.
- [FN 6] Ibid.
- [FN 7] Graph from NOAA Fish Facts web page. Accessed on November 5, 2010 at <http://chesapeakebay.noaa.gov/fish-facts/oysters>.
- [FN 8] Draft Chesapeake Bay TMDL, SECTION 5: Chesapeake Bay Monitoring and Modeling Frameworks at page 5-15.
- [FN 9] Chesapeake Bay Program: Oyster Harvest. Web page accessed November 5, 2010 at <http://www.chesapeakebay.net/oysterharvest.aspx?menuitem=14701>.

[FN 10] The Tragedy of the Commons by Garrett Hardin. Science (162:1243-1248) 1968.

[FN 11] Draft TMDL Appendix U: Filter Feeders White Paper at page U-4.

[FN 12] See Draft TMDL Section 10.7 at page 10-8. Section 10.7 is all of two paragraphs long.

APPENDIX A FOOTNOTES

[FN 1] Water quality standards for the Chesapeake Bay include dissolved oxygen, chlorophyll a, and clarity. It is important to note that these standards were established to protect aquatic life (such as oysters) in the Bay and its tidal tributaries. If there are other limiting factors (such as lack of habitat or toxic pollution in sediments), restoring water quality to these standards will not necessarily equate to increases in aquatic life.

[FN 2] "The E3 [everything, everywhere, everyone] scenario is a 'what-if' scenario of watershed conditions with theoretical maximum levels of managed controls on all pollutant load sources. There are no cost and few physical limitations to implementing BMPs [best management practices] for point and nonpoint sources in the E3 scenario" (see draft TMDL page J-4)

[FN 3] It is our understanding that Scenario E3 assumes that oysters and menhaden, as well as other (unspecified) filter feeders, are represented at current populations. For oysters, this means that populations are at 1 percent of their historic levels.

[FN 4] The specific date as to when any concept of a Use Attainability Analysis (UAA) for the Bay was dropped is unclear. The minutes of the June 16, 2009 Quarterly Meeting of the Chesapeake Bay Program's Scientific and Technical Advisory Committee attribute the following statement to J. Charles (Chuck) Fox, EPA Senior Advisor: "We did a use-attainability analysis about five years ago and it is an enormous suck of energy. This should always be up for consideration, but given the realities of the day and lack of progress and public knowledge, we need to see how far we can get in the next few years." <http://www.chesapeake.org/stac/MeetInfo/june09mins.pdf>

[FN 5] Contrary to Mr. Fox's statement that EPA did a UAA five years ago, EPA did not evaluate the widespread social and economic factor which can be used to issue a variance or revise the water quality standards.

[FN 6] The Clean Water Act requires that States conduct triennial reviews of their water quality standards every three years. EPA should revise their 2-year milestone deadlines to coincide with the States' triennial review dates to ensure efficiencies in the Bay TMDL process.

[FN 7] EPA has continued to reduce the time for public review (see November 3, 2009 letter from William C. Early to Secretary Bryant where the anticipated 90-day public comment period was reduced to 60 days). EPA then reduced the public comment period on the draft TMDL to November 8, 2010 which allowed for only a 45-day review period.

[FN 8] Scientific and Technical Advisory Committee (STAC). December 2002. Suspension feeders: A Workshop to Assess What We Know, Don't Know, and Need to Know to Determine Their Effects on Water Quality. March 18-19, 2002. BWI Ramada Inn, Hanover, Maryland. Chesapeake Bay Program.

[FN 9] The latest publication on incorporation of filter feeders into the Chesapeake Bay modeling tool is Cerco and Noel, 2010.

[FN 10] See minutes of the April 5-6, 2010 meeting of the Chesapeake Bay Program Water Quality Goal Implementation Team at Presentation F.

<http://archive.chesapeakebay.net/calendar.cfm?EventDetails=10559&DefaultView=all&RequestDate=04/01/2010> [FN

11] The water quality model (WQM) used by Cerco and Noel (2005, 2007, and 2010) is an earlier version of the WQSTM.

[FN 12] Minutes of the April 5-6, 2010 Water Quality Goal Implementation Team meeting are located at http://archive.chesapeakebay.net/pubs/calendar/47043_04-05-10_Minutes_1_10559.pdf .

[FN 13] EPA prepared a slide (with no data) for the April 5-6, 2010 to demonstrate the relationship between filter feeders and nutrient reductions. See slide 9 at http://archive.chesapeakebay.net/pubs/calendar/47043_04-05-

10_Presentation_4_10559.pdf

[FN 14] Pellett, K. (2008) Salmon River Nutrient Enrichment for Fish Habitat Restoration, 2008; Report prepared by BCCF for BC Ministry of Environment Fisheries Section, Nanaimo, British Columbia; BC Hydro Bridge Coastal Restoration Program, Burnaby, British Columbia; Western Forest Products Forest Investment Account; and Georgia Basin/Vancouver Island Living Rivers; <https://www.bchydro.com/bcrp/projects/docs/08.CBR.05.pdf>.

[FN 15] See the 2004 Chesapeake Bay oyster management plan at <http://www.chesapeakebay.net/oystersmanagement.aspx?menuItem=14770> . This document is listed in the draft TMDL as a reference but is never discussed.

[FN 16] The materials for the October 2005 Quarterly Meeting of the Modeling Subcommittee are located at <http://archive.chesapeakebay.net/calendar.cfm?EventDetails=5980&DefaultView=all&RequestDate=10/1/2005> . Dr. Cerco's presentation is entitled Status and Progress of the hydrodynamic and water quality models.

[FN 17] EPA, July 21, 2003. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act; TMDL-01-03. Memorandum from Diane Regas, Director of Wetland, Oceans and Watersheds to Water Division Directors, Regions 1 - 10.

http://www.epa.gov/owow/tmdl/tmdl0103/2004rpt_guidance.pdf

Response

EPA hears your concerns and aware of the well documented importance of oysters to the Chesapeake Bay ecosystem. The oyster population has been in a severe decline for many decades and there are numerous compounding factors which contribute to their low population numbers. EPA is aware that increased oyster populations will aid in improving water quality, however we cannot rely solely on these animals to address and filter the large amounts of nitrogen, phosphorus and sediment entering the Bay from numerous sources throughout the watershed. Contrary to the comment in “Additional Considerations”, EPA has encouraged jurisdictions to include filter feeder restoration into their Watershed Implementation Plans in order to highlight their importance and to better account for future actions to increase populations in the 2-year milestones. While EPA encourages filter feeder restoration projects it is not sound science to account for large population increases at this time in the TMDL. Restoration efforts have been underway for years to increase filter feeder populations with minimal observed population change. The combined factors of disease, lack of suitable substrate and excess nutrients fuel the growth of algae blooms that deplete oxygen in deeper waters and can hinder the development of oysters. Until we are able to alleviate some of the stressors on the oyster population it is not practical to heavily rely on filter feeders to address the water quality issues in the Chesapeake Bay.

It is in EPA’s professional opinion that we have capture the most predominant filter feeders known to improve water quality; however we are well aware that there are numerous other filter feeding animals that benefit water quality. Please refer to the response to comment 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders. For information on how filter feeders are included in the modeling please refer to Section 5 of the Bay TMDL speaking to the Chesapeake Bay Water Quality and Sediment Transport Model.

EPA reminds the commenter that EPA is under a legal obligation to establish a TMDL that meets water quality standards in the Bay. Please refer to the response to comment 0038.1.001.024 outlining the federal effort towards the Bay.

Please refer to the response to comment 0481.1.001.010 to address your comments regarding a UAA.

Please see the following URL for EPA's statement on why we are not extending the TMDL deadline.

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StatementonBayTMDLCommentPeriod.pdf

Comment ID 0746.1.001.016

Author Name: Carl Jimmie

Organization: Southern Tier Chesapeake Bay TMDL Commenting Coalition

Balancing The Filter Feeding Biological Populations Within The Bay

The historic over exploitation of Eastern Oysters and the current over harvesting of Menhaden fish in the Chesapeake Bay have negatively impacted the water quality of the Bay, as Oysters and Menhaden are filter feeders that play an important role in the removal of nutrients from the Chesapeake Bay. The populations of both Eastern Oysters and Menhaden are reportedly declining.

In regards to Eastern Oysters, their current population within the Bay is only about 1 percent of the historic population. Historical over harvesting and loss of habitat is cited as major contributing factors in this decrease. The current goal of the Chesapeake Bay is to increase the Eastern Oyster population tenfold. With this tenfold increase, the oyster population could remove 10 million pounds of nitrogen annually from the Bay [FN28]. This increase in Nitrogen removal would be substantial, exceeding the respective current annual delivered total nitrogen loads of Delaware and West Virginia and being roughly equivalent to New York State's current total nitrogen load to the Bay.

Atlantic Menhaden are a vital link in the food chain, and a balanced, thriving population could have the ability to filter a volume of water equal to the entire Chesapeake Bay in than one day. Menhaden have the potential to consume up to 25 percent of the Bay's nitrogen. However, an intensive fishery seasonally depletes the population of Menhaden within the Bay, arguably one of the Bay's most valuable living resources. Atlantic Menhaden are the most important filter feeder and one of the most abundant species of finfish in the Chesapeake Bay, with the filtering capacity to consume approximately 10 times more phytoplankton than the Eastern Oyster. [FN29]

According to Appendix U to the Draft TMDL, since the Menhaden population has declined, the following trends in water quality and living resources have been observed.

- The populations of mesozooplankton, the food base for many species, have declined in mid-Bay and lower-Bay waters.
- Food (phytoplankton and zooplankton) generated in the highly productive open water habitats of the Bay has increasingly been shunted towards ctenophores (comb jellyfish) and bacteria and away from fish.
- Comb jellyfish, a predator of zooplankton, fish eggs, and larvae, are increasing in mid-Bay waters.
- Within the Bay main stem water clarity has been decreasing, while levels of nutrients have not changed significantly.

In contrast to the lack of reliance, when setting the TMDL's proposed allocations, on assuming reasonable increases in these important Bay indigenous aquatic species, the Draft TMDL assumes that New York farmers are required to install practices to reduce nutrients. The Draft TMDL recognizes that if a farmer remove a riparian buffer, the nutrient and sediment load goes up because the buffer is no longer filtering the water. Because restoring a balanced, indigenous

aquatic populations, including these two important filter feeding species is another important step in the total restoration of the Bay, the protection and proliferation of filter feeders should be a corner stone of the Bay Restoration Initiative and reasonable successes should be assumed in the base nutrient allocation in the final TMDL. Appropriate measures to protect these resources and ensure their proliferation are a paramount and a fundamental part of the Bay's integrated restoration should be assumed, by the final TMDL, this would increase the amount of allocable nutrients and sediments that is available to be fairly distributed among the Bay States.

[FN28] Strategies for Allocating Filter Feeder Nutrient Assimilation into the Chesapeake Bay TMDL, Prepared by TetraTech, Inc., for the USPA, September 24, 2010.

[FN29] Exploitation of Atlantic Menhaden Threatens Restoration of the Chesapeake Bay, James Price, Published in the Bay Journal, October 2001.

Response

EPA hears your concerns. Please see comment ID 0230.1.001.051 where EPA speaks to accounting for additional analysis for filter feeders.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 32. Public Involvement

Pages 2789 – 2890

32.0. Public Involvement	Pages 2789 – 2793
32.1. Public Meetings	Pages 2793 – 2796
32.2. Webinars	Pages 2796 – 2796
32.3. Public Comment Period	Pages 2797 – 2854
32.4. Public Notices (federal register, newspaper, etc.)	Pages 2854 – 2855
32.5. General/Miscellaneous	Pages 2855 – 2890

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

32 - PUBLIC INVOLVEMENT

Comment ID 0298.2.001.001

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

EPA has failed to provide the public with sufficient data and documentation needed to review, evaluate, and fully comment on the proposed allocations. The information and data that are available show that the model and model inputs are lacking in the level of precision that should be required of regulatory action with consequences as significant and widespread as the Bay TMDL.

Response

Please see response to comment 0419.1.001.013.

Comment ID 0376.1.001.024

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

while EPA is quick to note that the efforts to restore the Bay have been ongoing since the 1980s, its proposal represents a marked change in both the expectations for the industrial dischargers under the full backstop allocations and its view of the Virginia regulatory program. EPA has not provided the public with the opportunity to understand how the model works and the implications of the changes in the input data sets. EPA has only allowed 45 days for comment on its proposal. The lack of transparency in EPA's proposal, coupled with a limited review period, stands in contravention to the regulatory process envisioned by the Administrative Procedure Act.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

With regard to the availability of modeling information, please see response to comment 0419.1.001.013.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0410.1.001.031

Author Name: Pujara Karuna

Organization: Maryland State Highway Administration (SHA)

SHA thinks that the scope of the TMDL and WIP must allow for greater interagency cooperation and dialog. To that end, SHA requests that all entities, including SHA, with significant responsibilities under the TMDL be given greater access to discussions of the Chesapeake Bay Partnership, and much greater opportunity to participate in the future development of the TMDL and Chesapeake Bay Watershed Model.

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

The Watershed Implementation Plans are not part of the TMDL. Although EPA has worked closely with the states in the development of their draft and final WIPs, the process for development and review are determined by the respective states and the District of Columbia.

EPA encouraged the involvement of state agencies in the development of the TMDL. In addition to the outreach opportunities, listed above, EPA has had a WIP coordinator assigned to work with each jurisdiction and all requests for information, data, scenarios and other items have been coordinated through that individual specifically to ensure that each request for information or assistance is addressed.

Comment ID 0434.1.001.018

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

VII. The Data and Information Relied Upon by EPA to Establish Its Draft TMDL Have Not Been Shared with the Public.

EPA claims to have relied on the "Scenario Builder" model to develop inputs or assumptions for the Chesapeake Bay Watershed Model, which then generates data used to determine whether water quality standards will be met based on those inputs. See Draft TMDL, Section 8 and Appendix H.

Scenarios representing different nutrient and sediment loading conditions were run using the Chesapeake Bay Phase 6.3 Watershed Model [the Scenario Builder] and the resultant model scenario output was fed as input into the Chesapeake Bay Water Quality Model to evaluate the response of critical water quality parameters, specifically dissolved oxygen, water clarity, underwater bay grasses and chlorophyll a.

Draft TMDL, Appendix H at page 1. Despite the significance of this information, EPA did not make the Scenario Builder input decks and outputs for the partial backstop and full backstop scenarios and for EPA's evaluation of Virginia's WIP available until November 2, 2010 - over 4 weeks after the public comment period began. This gave stakeholders only 6 days to access and review the information. This is hardly enough time for stakeholders to meaningfully comment on such critical aspects of the modeling data.

In addition to shortchanging stakeholders, the expedited process established by EPA also does not allow sufficient time for the states to review and address comments received on the Bay TMDL as part of the WIP modification process. It is our understanding that the states will have only 4 days following the close of the public comment period on November 8 to develop revised input decks and request new model runs from the Chesapeake Bay Model. The states do not have enough time to process the comments received and incorporate them into their decisions about input decks and model runs for purposes of revising the WIP. The states will also have very limited time with which to evaluate the model run results and incorporate them into their revised WIP proposals. The accelerated pace established by EPA undermines EPA's claims that it values stakeholder input and desires a transparent and open TMDL development process. This is especially true given the fact that the consent decrees that EPA relies upon as the basis for the accelerated timetable don't require the Bay TMDL to be completed until May 2011. EPA itself has chosen to move the deadline up to

December 2010.

The process that EPA has established for the development of the Bay TMDL runs afoul of the spirit of the Administrative Process Act. Access to the underlying modeling data should be provided with sufficient time for stakeholders to meaningfully participate in the development of such a complex TMDL that will have significant effects on the agricultural community, and all stakeholders throughout the watershed.

Response

With regard to the WIP process, for several months, EPA worked closely with the states and the District of Columbia to strengthen the draft Watershed Implementation Plans submitted to EPA in early September. EPA had numerous constructive meetings and conference calls with each of the jurisdictions and reviewed preliminary WIP submissions. EPA also worked with jurisdictions after the submittal of final WIPs to minimize or eliminate the possibility of federal backstop measures. The Watershed Implementation Plans are not part of the Bay TMDL. The review processes for the WIPs were determined by the individual states and the District of Columbia.

The Bay TMDL schedule was not arbitrarily determined. The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator.

The 45-day public comment period was also the product of negotiation and agreement among the states and EPA. The December 31, 2010 date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010. In addition, a settlement agreement between EPA and the Chesapeake Bay Foundation requires EPA to issue the final TMDL by this date.

With regard to the availability of modeling information, please see response to comment 0419.1.001.013.

Comment ID 0440.1.001.010

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

4.) Chesapeake Bay Program's Organizational Structure

Page 1 -8 of the DRAFT TMDL provides an organizational chart and devotes several paragraphs to a description of the Chesapeake Bay Program's (CBP) structure. As the chart illustrates, local government input is sought from the Local Government Advisory Committee which is located on the periphery of the decision-making process. Since the majority of expenditures and implementation of policies to improve water quality occur at the local level, VACo believes local government officials need to be more centrally positioned within the Chesapeake Bay Program's decision-making process.

Recommendation: VACo recommends the inclusion of technical experts from local governments on the Principals' Staff

Committee.

Response

The Principals' Staff Committee and the Executive Council rely strongly on its Bay Program committees for information and perspective, including the Local Government Advisory Committee. Here is a description of LGAC's functions:

LGAC is a body of officials appointed by the Governors of Maryland, Pennsylvania, Virginia, and the Mayor of the District of Columbia to improve the role local governments play in Bay restoration efforts and develop strategies to broaden local government participation in the Chesapeake Bay Program. Since its creation in 1988 LGAC has actively supported local government participation in the Chesapeake Bay Program. Quarterly meetings of LGAC provide the forum for policy development and periodic adjustment to programming functions and organizational direction. Improving communication, supplying technical assistance to local governments, and providing a local government perspective on policy development within the greater Chesapeake Bay Program are the chief means by which LGAC works to enhance the participation of local governments in the Bay restoration effort.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

32.1 - PUBLIC MEETINGS

Comment ID 0043-cp.001.001

Author Name: Cormons Grace

Organization: Eastern Shore Local Food Project

I would like to be able to attend one of your hearings, but none are beng held nearby.

Response

EPA recognizes the strong interest expressed by the public in the draft Chesapeake Bay TMDL. EPA worked closely with each of the seven watershed jurisdictions in deciding the number, location, date and time of the public meetings. There were 18 public meetings on the draft TMDL held throughout the Bay watershed in the fall of 2010. EPA and the respective jurisdictions sought

facilities that were centrally located, easily accessible, and could accommodate at least 200 people. EPA also provided free Internet access to one meeting in each of the jurisdictions. to expand the audience to those who could not attend the meetings in person. Those accessing through the Internet had an opportunity to ask questions online. Of the 18 public meetings, two were held on the Eastern Shore (Georgetown, DE, and Easton, MD) and another in Hampton, VA. Further information can be found at: <http://www.deq.state.va.us/tmdl/chesapeakebay.html>

Comment ID 0207.1.001.001

Author Name: Arcuri Michael

Organization: United States House of Representatives

The commenter submitted copyrighted material in the form of a newspaper article in the Oneida County Courier, dated October 29, 2010.

Response

EPA acknowledges receipt of the newspaper article.

Comment ID 0233-cp.001.003

Author Name: Tanger B.

Organization:

Regarding the EPA presentations done at the meetings around the bay watershed, we believe they could be much better. The visuals should include the Virginia WQA table showing the results over the past twelve years. The public needs to know that our rivers are getting more and more polluted. Also, the Bay Report Card should be shown, since it also shows the continuing failure to clean up the bay. Without showing these two important elements, the public will assume that the rivers and bays of Virginia are getting better every day. By including more supporting data, the case can be better made for the EPA plan.

Response

There has been significant progress made by the states, D.C. and other members of the Chesapeake Bay Program partnership over the past three decades, however there is a long way to go. Through charts and other information, EPA's presentations were designed to show the major work still ahead to meet water quality standards in the Bay.

Comment ID 0307-cp.001.001

Author Name: Josenhans S.

Organization:

Several panel members passed a question to the panel down the line as they sat taking turns answering the acceptable questions. Chuckling, eye rolling and scoffing ended with the items eventual disappearance leading several in attendance wondering if it were their own question to the panel. I assume that to have been part of the process of screening questions. On leaving the Plether Center, I heard various comments concerning the 'strong armed' sense of empowerment on the part of our Federal public servants. I was saddened that there was no apparent appreciation for the time and commitment to participate on the part of the bulk of attendees.....trying to beat the little timeout clock..... sorry no time for spell check.

Response

EPA appreciates the time and effort of the public to attend the public meetings on the Bay TMDL and greatly values the opinions and perspectives of all in this process. EPA held 18 public meetings in six weeks across the Chesapeake Bay watershed to provide opportunities to explain the draft Bay TMDL and to get public input. The meetings were structured so that half of the time would be dedicated to hearing comments from the public and addressing questions. If there was a high volume of questions, our panel did its best to ensure that a good cross-section of the issues was addressed. A priority was placed on bringing to the podium those audience members who wanted to make a comment, regardless of whether that comment was in favor or in opposition to the TMDL.

Comment ID 0484-cp.001.002

Author Name: Hosenhans F.

Organization:

This, my 5th attempt to be "heard" on record only serves to underscore my initial attempt which along with the second were wiped from the text window as the website announced that I had "timed out" The two entries that this is meant to supercede, were reflective of not only the limitations of the meeting as referenced below, but indeed compounded by some sort of "beat the clock" programming built into this electronic system of public record, beyond the specified character limit.

I would like to thank a certain "Scott" who replied me by phone and who was so very helpful seeing to it that this one 'voice' might be entered into the record. I suspect that there were many beyond myself who may not have persisted and have now gone figuratively unheard.

On October 6th, 2010, as a resident citizen of the Commonwealth of Virginia, I attended an EPA public meeting at the University of Richmond. Though being very appreciative of the strong efforts of my state's public servants and officials to compliment the citizenry through that very service, I was troubled by the manner in which the meeting, or perhaps better yet; forum, was conducted. At the outset the attendees were advised that no commentary would be entered into the public record save that which happened behind the podium. Blank cards were passed about to eager hands while being told that they would be screened in order to filter out those which were redundant. When the cards selected were

read and addressed by panel members, it seem as if one of those soft ball interviews seen on the four letter cable news shows. In light of the limited number of attendees allowed to speak at the podium, the U of R Environmental Law Department staff and students seemed afforded unfair access as did at least one representative of a plaintiff in the Fowler v. EPA settlement. But a few voices were heard among the ranks of those likely to be most directly affected by this Bay process and they spoke well, respectfully and yielded respectfully as the red "stop sign" was presented. It is a shame that there was no meeting that night but only a carefully crafted forum. I feel saddened that the constraints placed on dialog that night in Richmond and subsequently in this electronic forum have hinder true and free expressiveness on the subject.

I applaud the Commonwealth's efforts at improving our natural resources and seeking a holistically balanced approach in those efforts. We in Virginia value and truly appreciate humbly dedicated and effective government and when finding ourselves faced with a lesser example, we recognize and acknowledge it as such readily.

Response

EPA held 18 public meetings in six weeks across the Chesapeake Bay watershed to provide opportunities to explain the draft Bay TMDL and to get public input. Clear instructions were provided about how to enter a formal comment for the record. The meetings were structured so that half of the time would be dedicated to hearing comments from the public and addressing questions. If there was a high volume of questions, our panel did its best to ensure that a good cross-section of the issues was addressed. A priority was placed on bringing to the podium those audience members who wanted to make a comment, regardless of whether that comment was in favor or in opposition to the TMDL. The commenters did not have to indicate the nature of their comment in advance.

Comment ID 0737.001.006

Author Name: Comment Anonymous

Organization: Lower Allen Township Authority

Attendance at PA DEP WIP and EPA TMDL meetings or any input or comments made should not be considered -as support of the PA DEP WIP or EPA TMDL nor imply any involvement with drafting of the documents.

Response

EPA acknowledges the comment.

32.2 - WEBINARS

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

32.3 - PUBLIC COMMENT PERIOD

Comment ID 0060.1.001.001

Author Name: Bredwell III Paul

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

The U.S. Poultry & Egg Association, the National Turkey Federation and the National Chicken Council respectfully request that EPA extend the comment period deadline on the proposed Chesapeake Bay TMDL to 120 days, in light of the scope, complexity and potentially severe impacts of the proposal on family farms and poultry processing operations.

Response

After careful evaluation, EPA determined it was not feasible to extend the 45-day public comment period for the draft Chesapeake Bay TMDL past November 8, 2010 and therefore delay finalization of the TMDL past December 31, 2010.

The completion date was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator.

The 45-day public comment period was also the product of negotiation and agreement among the states and EPA. The December 31, 2010 date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010. In addition, a settlement agreement between EPA and the Chesapeake Bay Foundation requires EPA to issue the final TMDL by this date. We were unable to extend the public comment period and meet our important commitment to the states and citizens of the watershed to complete the TMDL by December 31, 2010.

The draft Chesapeake Bay TMDL has been developed through a highly transparent and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in fall 2009 and fall 2010; a dedicated EPA website; a series of monthly interactive webinars; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

Additionally, EPA and the states and D.C. have been working together to develop the Chesapeake Bay TMDL since 2005. Officials and staff have been in constant discussion throughout the process, including in hundreds of conference calls and meetings, particularly through the Chesapeake Bay Program. The states and D.C. also involved stakeholders in the development of their draft Watershed Implementation Plans, providing another layer of outreach.

Comment ID 0062.1.001.010

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

After EPA makes this information available, we respectfully request EPA to provide 120 days for the public to review and comment on the Draft TMDL.

Response

Please see the response to comment 0060.1.001.001.

Comment ID 0062.1.001.014

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

We are aware that EPA signed a settlement agreement with the Chesapeake Bay Foundation (CBF) agreeing to finalize a TMDL for nutrients and sediment for the Chesapeake Bay watershed by December 31, 2010. We respectfully submit that such a schedule would fail to provide for meaningful public comment.

Response

EPA acknowledges that the comment on the settlement agreement signed with CBF is accurate. EPA disagrees that the 45 day public review and comment does not provide a meaningful public comment period. Please also see the response to comment 0060.1.001.001.

Comment ID 0063.1.001.008

Author Name: Jones Martin

Organization: Fertilizer Institute (TFI)

Accordingly, we request that EPA [...] extend the comment period 120 days after this information is released to the public to ensure that all the relevant information used to establish TMDLs is publically available and that the public has sufficient time to review and comment on the Draft TMDL.

Response

Please see the response to comment 0060.1.001.001.

Comment ID 0063.1.001.010

Author Name: Jones Martin

Organization: Fertilizer Institute (TFI)

We appreciate your consideration of this request for an extension of the comment period for 120 days after EPA makes the scenario data and scenario results publically available. We trust that EPA is interested in receiving thorough comments on this complex issue and ensuring that the public has access to all the relevant information and, as such, will grant our request.

Response

While EPA is not extending the public comment period, EPA appreciates receiving comments on this proposed TMDL. Please see the response to comment 0060.1.001.001.

Comment ID 0065-cp.001.001

Author Name: Mason James

Organization: Virginia Poultry Growers Cooperative, Inc.

Our Co-Op request that an extention up to 120 days be granted for comments on the TMDL. A draft of this magnitude must have more time for everything to be looked at to make the itiems in the draph as accurate as possible.

Response

Please see the response to comment 0060.1.001.001.

Comment ID 0066.1.001.001

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

On behalf of the National Association of Homebuilders (NAHB), I respectfully request that the U.S. Environmental Protection Agency (EPA) extend the public comment period for the Draft Total Maximum Daily Load (TMDL) for the Chesapeake Bay, the availability of which was announced in the Federal Register on September 22, 2010, for an additional 180 days. This additional time is needed because of the technical complexity of the proposal and the need to afford all impacted parties an opportunity to fully understand and provide meaningful comments. It is also needed so that EPA can make all of the supporting documents available for review.

Response

Please see the response to comment 0060.1.001.001.

Comment ID 0066.1.001.007

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

EPA acknowledges that the Chesapeake Bay TMDL will be the largest, most complex TMDL in the country, and it will be held up to the nation as the bar to meet for the future nutrient reduction programs that will take place around the U.S.; yet EPA is, at the same time, proposing to short shrift the public by limiting its ability to study the proposal and offer comment. Indeed, EPA has asked the public to review and comment on the lengthy proposal and supporting documentation including state Watershed Implementation Plans, a highly-technical pollutant reduction model, land use assumptions, and 22 appendices. Appendix B alone includes a list of documents supporting the Chesapeake Bay TMDL that spans 16 pages - all of which should be analyzed and understood before making comment. Taken together, the sheer volume of information amounts to thousands of pages that cannot realistically be reviewed and analyzed within the given 45-day comment period. Moreover, because the proposal raises many legal and policy issues, careful consideration and research will be needed before suggested solutions can be drafted.

While the Administrative Procedure Act (APA) does not specify a minimum time period for comment on a proposed rule, Executive Order (EO) No. 12866 provides that most rulemakings "should include a comment period of not less than 60 days." [FN1] Likewise, for most TMDLs, EPA and the states provide a minimum of 60-90 days for public input. For example, EPA recently provided a public comment period of 60 days for the Accotink Creek TMDL in Virginia in the summer of 2010. Accotink Creek represents only one TMDL, vs. the 94 segments, or individual TMDLs, that make up the overall Chesapeake Bay TMDL. Following this example, it would be plausible that the Agency provide a 5,640 day comment period for the Chesapeake Bay TMDL (60 days per TMDL x 94 segments). NAHB is merely asking for additional 180 days.

[FN1] Exec. Order 12866, 58 Fed. Reg. 51735 (September 30, 1993).

Response

Please see the response to comment 0060.1.001.001. And EPA notes that the Chesapeake Bay TMDL is not a regulation.

Comment ID 0066.1.001.008

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

Furthermore, when the Agency has offered insufficient time to review similarly complex and expansive rulemakings, EPA has recognized the mistake, extended the comment period, and issued the complex rulemaking after due time for consideration. For example, EPA proposed 80 TMDLs in Louisiana and originally offered the public only 30 days for

review and comment. [FN2] Not surprisingly, EPA received several requests to extend the comment period, so EPA agreed to accept comments for an additional 60 days. [FN3] After reviewing comment from stakeholders who had additional time to review the data, EPA finalized the 80 TMDLs 7 months later. [FN4]

[FN2] 71 Fed. Reg. 41217 (July 20, 2006) (setting August 21, 2006 as the original deadline for public comment).

[FN3] 71 Fed. Reg. 59504 (Oct. 10, 2006) (agreeing to accept public comment until October 20, 2006, review the comments, and revise or modify the TMDLs as appropriate).

[FN4] 72 Fed. Reg. 19,703 (Apr. 19, 2007).

Response

Please see the response to comment 0060.1.001.001. And EPA notes that the Chesapeake Bay TMDL is not a regulation.

Comment ID 0066.1.001.016

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

Indeed, EPA states that the goal of these meetings is "to assist the public in their understanding of the Draft Bay TMDL and provide an overview of the TMDL process, especially the stakeholder review and comment process." [FN5] For stakeholders in Romney, West Virginia who are hoping to use their November 4 public meeting as an opportunity to be introduced to EPA's effort, their public comment period has effectively been reduced to 4 days (two if one only counts business days).

Only people who work in the affected industries can possibly know in full how the proposed rule will impact their operations and how their portion(s) of the rule will work in the real world. Therefore, their review and comment is absolutely necessary to fine tune the requirements and ensure the proper balance between environmental stewardship and the economic impacts is made. In order to ensure that these entities can make their voices heard, EPA must extend the comment period.

[FN5] 75 Fed. Reg. 5776 (September 22, 2010) (emphasis added).

Response

Extensive information on the Draft Bay TMDL, including access to the full document, has been available on the EPA web site, www.epa.gov/chesapeakebaytmdl since the start of the public comment period of September 24, 2010. In addition, the seven webinars EPA held throughout the fall in conjunction with the public meetings were available to the general public via the Internet and included general as well as state-specific information and the ability to ask questions online. The webinar registration links were available on the Bay TMDL web site.

Comment ID 0069.1.001.010

Author Name: Nemura Adrienne

Organization: LimnoTech

We believe this request for a minimum 120-day review period is more than reasonable. As noted in numerous EPA public forums, this is the largest TMDL that has ever been done. The only other TMDL that was nearly as large and complicated as the Chesapeake Bay TMDL was the mercury TMDL for New England. In that TMDL, EPA was involved as outlined by the Clean Water Act to review and approve or disapprove the TMDL. The TMDL covered all the New England States and part of New York. Each state issued an individual TMDL and provided a 59-day comment period. The TMDL report was only a little over 100 pages long. Based on past practice of the Agency and other regulatory agencies, we cannot see how a 45-day comment period is appropriate. We recognize that EPA has entered into a consent agreement regarding the Bay; however, we do not feel this should preclude EPA from providing the public with an appropriate notice and comment opportunity.

We would appreciate your review of this request and ask that you notify us of your decision within the next 5 business days.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

Although the Bay TMDL is a detailed document, the public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls

with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0075.1.001.001

Author Name: Downes Paul

Organization: Mountaire Farms Inc.

Our organization respectfully requests that EPA extend the comment period deadline on the proposed Chesapeake Bay TMDL to 120 days, based on the complexity of the proposal and its potentially severe impacts on family farms and poultry processing operations in my state.

EPA's proposed action is the most ambitious TMDL initiative ever attempted by the agency. The proposal covers multiple state and local jurisdictions, relies on extremely complex methodologies, impacts a wide range of small to large businesses and treatment operations, and will affect tens of millions of citizens.

Having only 45 days to review and recommend changes to such a far-reaching proposal is not a meaningful comment opportunity, particularly when there are only several weeks left between now and when the TMDL is scheduled to be finalized at the end of this year.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0137.1.001.001

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

Tyson Foods, Inc. (Tyson) respectfully requests that the U.S. Environmental Protection Agency (EPA) provide a 120 day extension for comments on the draft Chesapeake Bay Total Maximum Daily Load released for public comment on September 24, 2010. 75 Fed. Reg. 57776 (Sept. 22, 2010) (Docket Number EPA-R03-OW-2010-0736) (hereinafter Draft TMDL). We all share the goal of ensuring the health and water quality of the Chesapeake Bay, but more time is needed for individuals and companies like Tyson to comment on such a significant document and associated materials. Furthermore, Tyson must also comment on the various state Watershed Implementation Plans during this same timeframe.

The 45 day comment period that EPA has provided does not allow for a full and careful review of the Draft TMDL. In EPA's documents, the agency acknowledges that the "Chesapeake Bay TMDL is the largest, most complex TMDL in the country, covering 64,000-square-mile area in seven jurisdiction." Moreover, in the document "A Coming Together for Clean Water: EPA's Strategy For Achieving Clean Water," that "the Chesapeake Bay watershed will be a model for watershed protection in other parts of the country." Hence, the Draft TMDL represents one of the most important Clean Water Act activities in the history of the Act.

The importance of this action necessitates giving the public at least 120 days to comment on this highly complex and nationally important Draft TMDL.

Extending the public notice period to a minimum of 120 days will allow Tyson and other potentially effected entities to review the proposal and make meaningful comments.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

With regard to the complexity of the TMDL, please see response to comment 0153.001.003.

Comment ID 0145.1.001.002

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Additional information and documentation are required in order to formulate specific, meaningful comments, and additional time is required.

Response

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars, and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0145.1.001.005

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

we respectfully request that the public comment period or, alternatively, our time to submit written comments, be extended 120 calendar days from the posting/provision of the Programs or from September 24, 2010, whichever is first to occur.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0145.1.001.016

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Further, as discussed in detail below (in Section II), adequate time to review and evaluate that information is required.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0145.1.001.019

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

As the EPA acknowledges, the "Chesapeake Bay TMDL is the largest, most complex TMDL in the country, covering a 64,000-square-mile area in seven jurisdictions." See, TMDL, at pp. 2-7. Additionally, the EPA states that the Bay TMDL will be used as a model and set a precedent for the nation as the "standard" to be met for future nutrient reduction programs and TMDLs. Because the TMDL touches on many policy and legal issues, careful consideration and research are required before informed, meaningful comments and suggested changes can be developed and submitted. Due care is also necessary so as to avoid unintended consequences. A TMDL that cannot meet its intended goals serves no one. Allowing sufficient opportunity for the public to participate in the rulemaking process by providing input on the actions that can be taken to meet the goals, improve effectiveness, and lower the costs of the rule will better ensure that the Bay TMDL is not only practical and effective, but maximizes the chances that it will be properly and successfully implemented. Providing adequate time for this vital and necessary input thus affords substantial benefits to both the EPA and the public.

The Bay TMDL includes proposals for two separate sets of load allocations and wasteload allocations for three pollutants in 92 water body segments (one set to meet current water quality standards and one set to meet proposed water quality standards that may or may not be approved by the time the TMDL is issued). In essence, the Bay TMDL

consists of 552 separate TMDLs (6 TMDLs x 92 segments). The TMDL includes detailed implementation instructions directed at the seven watershed jurisdictions. Further, in addition to the TMDL "main" document - which consists of 365 pages - and voluminous appendices (the 22 appendices themselves add some 1,629 pages), numerous technical analyses and modeling information referenced in the TMDL each add to the range of separate documents and overall complexity of the information that must be reviewed in order to provide informed, thoughtful, meaningful, and credible comments. Appendix B alone - a list of documents which support or underlie the TMDL - spans 16 pages. All of those documents should be analyzed and understood in order to submit fully-informed, well-considered comments.

Despite acknowledgement that the TMDL is the most complex ever attempted, the EPA is presently allowing a mere 45 calendar days for public comment. Our Board believes that 45 days is insufficient under the Administrative Procedure Act ("APA") to provide for meaningful, informed public comment on the Bay TMDL by any person or entity. Therefore, we request a 120-day comment period extension beginning on the date that the EPA makes available for public review the inputs, outputs as well as the code for the Scenario Builder program.

Although the APA does not specify a minimum time period for comment on a proposed rule, Executive Order No. 12866 provides that most rulemakings "should include a comment period of not less than 60 days." [FN1]

Likewise, for most TMDLs, both the EPA and the states regularly provide a minimum of 60-90 days for public input. For example, one TMDL that affected an area nearly as large and had complexities like the Bay TMDL was the Northeast Regional Mercury TMDL, covering all of the New England States and part of New York. The Mercury TMDL report was 113 pages long. See, <<http://www.dec.ny.gov/chemical/31304.html>>. In that TMDL, the EPA was involved - as mandated by the Clean Water Act - in the review and approval of a regional TMDL sponsored by several states. Each state issued the TMDL and, including extensions, provided at least a 59-day public comment period. Four and one-half months were spent responding to comments, and the EPA took close to two months to review/approve. This summer, EPA Region III extended to 51 days (from 30) the comment period for the 135-page draft TMDL for Accotink Creek in Virginia, a single-pollutant TMDL to reduce sediment (in comparison to the 92 segments, or 552 individual TMDLs, in the Bay TMDL). See, <http://www.epa.gov/reg3wapd/tmdl/VA_TMDLs/AccotinkCreek/Accotink-Creek-TMDL6-30-2010DRAFT.pdf>.

Based on past practice of both the EPA and other federal regulatory agencies, we cannot see how a 45-day comment period is sufficient or appropriate in this case. We recognize that the EPA has entered into some voluntary settlement agreements and consent orders regarding the Bay; however, as discussed in detail below (in Section III), we do not believe this should be used by the EPA as a basis for depriving stakeholders and the public of a reasonable comment opportunity appropriate in length.

Moreover, on occasions when the EPA has initially offered insufficient time to review similarly complex and expansive rulemakings, the agency has recognized its mistake, extended the comment period, and issued such complex rulemakings only after due time for consideration of the comments received. For example, several years ago the EPA proposed 80 TMDLs in Louisiana and originally offered the public only 30 days for review and comment. [FN2] Not surprisingly, the EPA received several requests to extend the comment period, so the EPA agreed to accept comments for an additional 60 days. [FN3] After reviewing the comments submitted by the public and stakeholders who, as a result of the extension, had 90 days to review the proposal and supporting data, the EPA thereafter finalized the 80 TMDLs some six months later. [FN4]

[FN1] - Exec. Order 12866, 58 Fed. Reg. 51,735 (Sept. 30, 1993).

[FN2] - 71 Fed. Reg. 41,217 (July 20, 2006), setting August 21, 2006 as the original deadline for public comment.

[FN3] - 71 Fed. Reg. 59,504 (Oct. 10, 2006), agreeing to accept public comment until October 20, 2006, review the comments, and revise or modify the TMDLs as appropriate.

[FN4] - 72 Fed. Reg. 19,703 (Apr. 19, 2007).

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

With regard to the complexity of the TMDL, please see response to comment 0153.001.003.

With regard to the availability of modeling information and documentation, please see response to comment 0419.1.001.013.

EPA notes that the Bay TMDL is not a federal regulation.

Comment ID 0153.001.001

Author Name: Thesmar Hilary

Organization:

The National Turkey Federation (NTF) respectfully requests an extension of 120 days on the comment period for the draft TMDL documents.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0153.001.003

Author Name: Thesmar Hilary

Organization:

Due to the complexity of the TMDL documents, we would like to have adequate time to analyze and develop comments that will be of assistance to EPA

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

Although the Bay TMDL is a detailed document, the public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0165.001.002

Author Name: Satterfield Bill

Organization: Delmarva Poultry Industry, Inc. (DPI)

Delmarva Poultry Industry, Inc. (DPI), the 2,000 member trade association for the meat chicken industry in Delaware, the Eastern Shore of Maryland, and the Eastern Shore of Virginia, supports the position taken by a coalition of organizations as expressed in an October 15, 2010 letter from Susan Bodine with the Barnes Thornburg legal group. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0165]

The enormity of the task of developing a Chesapeake Bay TMDL is daunting. Developing it correctly and in a scientific manner in the compressed time schedule being followed by EPA is unlikely. We concur that interested persons need more data and more time to fully understand the consequences of the proposed TMDL and allowing just 45 days to comprehend and offer substantive comments on the TMDL is ridiculous.

Our members have not been working on the TMDL for years as has EPA and they do not have degree of knowledge and background that EPA personnel have. Our members are kept busy producing chickens for America's consumers and do not have the luxury of dropping everything to work on the TMDL.

More time is needed to understand this huge undertaking, especially since it will set the pattern for future TMDL programs nationwide. We urge EPA to follow the recommendations in the letter from Mrs. Bodine that we have enclosed. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0165]

Response

Please see response to comment 0060.1.001.001.

Comment ID 0169.1.001.009

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

Despite the enormous size and complexity of the TMDL documents released on Sept. 24, the socio-economic consequences of the proposed allocations, and the arbitrary nature of EPA's decision to establish the TMDLs by Dec 31, 2010 when it could have given the public additional time to comment had it taken advantage of the May 2010 deadline in the consent decree, Occoquan does not have sufficient time to adequately review and respond to the TMDLs in detail. Occoquan will defend vigorously any claim of waiver due to failure to submit comments to the TMDLs on the basis that insufficient time was given to adequately respond.

Response

The decision to establish the TMDL by December 31, 2010 was not an arbitrary one. For background on the public comment period and the timetable for establishing the TMDL, please see response to comment 0060.1.001.001.

In response to the comment regarding waiver, as described in greater detail in response to comment 0060.1.001.001, EPA believes the public comment period was adequate.

Although the Bay TMDL is a detailed document, the public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Comment ID 0194.1.001.015

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

The TMDL is very complex and consists of over 300 pages of text and numerous appendices, some of which are hundreds of pages long. Granting a 45-day review period for such a massive document is just ridiculous. Stakeholders should be granted at least twice that amount of time.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0217.1.001.002

Author Name: Pozgar David

Organization: Logan Township

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0218.1.001.002

Author Name: Wright Ronald

Organization: Borough of Everett Area Municipal Authority, Bedford County, Pennsylvania

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0249.1.001.002

Author Name: Mixell John

Organization: Fort Littleton Wastewater

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers

Response

Please see response to comment 0060.1.001.001.

Comment ID 0250-cp.001.004

Author Name: Eberly C.

Organization:

Also, forty-five days is not long enough public comment period for a regulatory action of this magnitude.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0253.1.001.006

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

The County has significant concerns with the transparency of EPA's Draft TMDL and Virginia's WIP regulatory process. Despite the enormous size and complexity of the TMDL documents released on Sept. 24, the socio-economic consequences of the proposed allocations, and the arbitrary nature of EPA's decision to establish the TMDLs by Dec 31, 2010 when it could have given the public and interested stakeholders additional time to comment had it taken advantage of the May 2010 deadline in the consent decree, the County does not have sufficient time to adequately review and respond to the TMDLs in detail. The County will defend vigorously any claim of waiver due to failure to submit comments to the TMDLs on the basis that insufficient time was given to adequately respond.

Response

With regard to additional time to review and comment on the Draft Bay TMDL, please see response to comment 0060.1.001.001. EPA made it a priority to be as transparent as possible in the TMDL process, holding meetings, webinars and other forums to explain details of the initiative and placing detailed information on two web sites, www.epa.gov/chesapeakebaytmdl and www.chesapeakebay.net. The Watershed Implementation Plans were not part of the TMDL and their processes were determined by the individual jurisdictions.

Comment ID 0255.1.001.002

Author Name: Gumm Gary

Organization: Washington Suburban Sanitary Commission (WSSC)

WSSC recognizes the tremendous challenges facing EPA, the District and our state and local partners to develop a comprehensive plan for implementation of the controls required to address the multifaceted sources of pollution to the Bay. Implementation of the controls required to address pollution loads from all sources that discharge to the Bay watershed, including the significant contribution of air borne pollutants, represents a tremendous fiscal challenge and commitment at all levels for this plan to succeed. In view of the tremendous significance of the Draft Bay TMDL and numerous implications for all stakeholders the 45 day comment period provided severely limits the level of detailed review and coordination possible. An extension of the comment period would provide time for a more comprehensive analysis and consideration of the multiple aspects of the Draft Bay TMDL.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0265.1.001.018

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

IV. EPA HAS FAILED TO PROVIDE THE LOCALITIES WITH A REASONABLE OPPORTUNITY TO REVIEW, EVALUATE, AND COMMENT ON THE BASIS FOR THE PROPOSED ALLOCATIONS.

A. The length of the comment period is insufficient given the size of the docket and the complexity of the TMDL.

Although EPA has characterized this as the largest and most complex TMDL ever developed, it is providing only a 45-day period to review and comment on the over 2,000 pages of documents posted on the docket. While we recognize that EPA has a certain amount of latitude in establishing the length of its comment periods, we submit that in this case, EPA has abused its discretion and effectively deprived stakeholders such as the Localities with a reasonable opportunity to comment on this very complex and controversial proposal.

The 45-day comment period is inconsistent with Executive Order 12866, which provides that most rulemakings should include a comment period of not less than 60 days, as well as EPA's own Public Involvement Policy, which stipulates that "the comment period for public review of unusually complex issues or lengthy documents generally should be no less than 60 days".[FN 8] Further, even a 60-day comment period would be too short in this case as reflected in the fact that EPA has established comment periods longer than 60 days for large, complex or controversial proposals such as this TMDL. Examples include EPA's 2010 proposed Water Quality Standards for Florida's Lakes and Flowing Waters (90-day comment period); EPA's 2009 proposed Renewable Fuel Standard (120-day comment period); EPA's 2001 proposed Electronic Reporting Rule (180-day comment period).

[FN 8] See Public Involvement Policy of the U.S. Environmental Protection Agency (EPA 233-B-03-002 - May 2003) at page 13.

Response

Regarding the public comment period, please see response to comment 0060.1.001.001.

Also, EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report.

EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities to the local scale, such as county, conservation district or sub-watershed.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0269.1.001.002

Author Name: Mixell John

Organization: Forbes Road School District

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0282-cp.001.006

Author Name: Tabb Lyle

Organization: Lyle C. Tabb & Sons, Inc.

In closing, I'd like to say that I am disappointed that I only have two business days to respond to what I think are serious allegations and unreasonable future requirements that were just presented to me.

Response

The public comment period for the Draft Bay TMDL was widely publicized and the notice was widely disseminated. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010. There were 18 public meetings held across the watershed, seven of which were broadcast on the Internet with an opportunity for listeners to ask questions. The webinar registration links were on the Bay TMDL web site.

Comment ID 0291-cp.001.002

Author Name: Koch E.

Organization: North Middleton Authority

The Public Comment Period needs to be extended beyond 45 days. The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0294.1.001.002

Author Name: Haley Mark

Organization: Virginia Nutrient Credit Exchange Association, Inc.

We take this position not because we are aware of any major inconsistencies of environmental importance between (1) the offset/trading provisions of the Draft TMDL and (2) Virginia's laws, regulations and policies and the Nutrient Exchange's compliance plan, policies and contracts developed consistent with Virginia law. However, a thorough analysis or comparison of that sort is in itself a major undertaking that simply cannot be performed within the short 45-day comment period. To the extent that EPA fails to adopt the Nutrient Exchange's position on the non-applicability of

the proposed new/increased load offset provisions to trading under the Nutrient Exchange, the Nutrient Exchange hereby requests a 90-day extension of the comment period and the opportunity for EPA, Virginia and the Nutrient Exchange to work closely to perform this analysis together.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0297.1.001.003

Author Name: Swailes Anna

Organization: Metal Township Municipal Authority

I question why the rush for such major changes to the standards and why the Public Comment Period is only 45 days. I believe this is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0299.1.001.008

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

The Comment Period was Insufficient to Allow for the Preparation and Submission of Informed Rebuttal Comments

The Executive Summary of the Draft Chesapeake Bay TMDL states that this TMDL "will be the largest and most complex thus far - it is designed to achieve significant reductions in nitrogen, phosphorus and sediment pollution throughout a 64,000-square-mile watershed that includes the District of Columbia and large sections of six states. The TMDL is actually a combination of 92 smaller TMDLs for individual Chesapeake Bay tidal segments ..." [See Draft TMDL, page iv] EPA and the states have spent years collecting data, refining models, developing pollutant allocations and strategizing implementation, yet despite the significance and enormity of this draft TMDL, the Agency cut in half the typical 90-day comment period. Due to the complexity of the TMDL and the number of affected parties, the EPA's comment period of 45 days is too short to allow for the development of substantive comments. After the Agency

considers the many comments it will receive and after the each state has updated its WIP, EPA should reopen the Draft TMDL for a more appropriate 90-day comment period.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0301.1.001.002

Author Name: Pappas Peter

Organization: Middletown Borough Authority

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Regarding the public comment period, please see response to comment 0060.1.001.001.

As to the awareness of non-significant point sources to the provisions of the TMDL, EPA and the respective watershed states and the District of Columbia have done extensive outreach on the Bay TMDL to the general public and to stakeholder groups, including the wastewater treatment sector. EPA alone has held hundreds of meetings with groups interested and impacted by the Bay TMDL since 2008, placed general and technical information on its public web sites, and conducted numerous interviews with the media to get the word out about this important initiative.

Comment ID 0313-cp.001.002

Author Name: Opalisky Larry

Organization: Curwensville Municipal Authority

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA

made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0328.1.001.006

Author Name: Kimpton Steven

Organization: INVISTA

4. The Comment Period was Insufficient to Allow for the Preparation and Submission of Informed Rebuttal Comments

The Executive Summary of the Draft Chesapeake Bay TMDL states that this TMDL "will be the largest and most complex thus far - it is designed to achieve significant reductions in nitrogen, phosphorus and sediment pollution throughout a 64,000-square-mile watershed that includes the District of Columbia and large sections of six states. The TMDL is actually a combination of 92 smaller TMDLs for individual Chesapeake Bay tidal segments ..." [See Draft TMDL, page iv] EPA and the states have spent years collecting data, refining models, developing pollutant allocations and strategizing implementation, yet, despite the significance and enormity of this draft TMDL, the Agency cut in half the typical 90-day comment period. Due to the complexity of the TMDL and the number of affected parties, the EPA's comment period of 45 days is too short to allow for the development of substantive comments. After the Agency considers the many comments it will receive and after the each state has updated its WIP, EPA should reopen the Draft TMDL for a more appropriate 90-day comment period.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Bay TMDL is a detailed document. That this why the TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of

Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0330.1.001.005

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

The City is a member of the Hampton Roads Planning District Commission (HRPDC) and the Virginia Municipal Stormwater Association (VAMSA), both of which organizations have analyzed the Draft TMDL with the assistance of scientific and environmental experts. The City fully endorses the position adopted by the member localities at the HRPDC meeting on October 20, 2010, and the position of the VAMSA, which jointly include:

- The EPA has failed to provide Virginia localities with a reasonable opportunity to review, evaluate and comment on the Draft TMDL.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

Virginia localities have had significant opportunity to be involved in the TMDL process.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states, including Virginia, during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks

forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities on the local scale, such as county, conservation district or small watershed.

Comment ID 0336-cp.001.003

Author Name: Napolitano John

Organization: Napolitano Enterprise

5. I do not believe that the EPA is allowing enough time for comment on this very complicated process. 45 days is unreasonable.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0368-cp.001.002

Author Name: Myers Kenneth

Organization: Borough of Huntingdon

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0376.1.001.026

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

The expedited process established by EPA also does not allow sufficient time for the states to review and address comments received on the Bay TMDL as part of the WIP modification process. It is our understanding that the states will have only 4 days following the close of the public comment period on November 8 to develop revised input decks and request new model runs from the Chesapeake Bay Model. The states do not have enough time to process the comments receive and incorporate them into their decisions about input decks and model runs. The truncated process creates the perception that EPA does not take the states' interests, concerns and available expertise seriously because it has not allowed them sufficient time to review and address the comments that are received.

Response

It was EPA's strong preference that the Bay TMDL be based on the Watershed Implementation Plans submitted by the states and the District of Columbia. EPA worked closely with the jurisdictions over the months between the draft and final WIP submissions to strengthen the draft WIPs. EPA had numerous constructive meetings and conference calls with each of the jurisdictions and reviewed preliminary WIP submissions during that time. EPA also worked with the states and the District after the final WIPs were submitted with the goal of minimizing or eliminating the need for backstop measures.

Comment ID 0390-cp.001.002

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

The Public Comment Period needs to be extended beyond 45 days.

The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0405.001.002

Author Name: Lagowski Paul

Organization: BAE Systems

The Public Comment Period needs to be extended beyond 45 days. The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0408-cp.001.006

Author Name: Koon Teresa

Organization: West Virginia Department of Environmental Protection and West Virginia Department Agriculture

Public comment period - The public meetings and public comment period did not allow adequate time for West Virginia residents to become informed and comment on the TMDL. The shortened public comment period resulted in the public meetings being squeezed into a very tight timeframe. West Virginia's public meetings were 2 working days prior to the deadline for public comments. While we recognize that we requested to have our meetings at the end of the process, had original time frames been adhered to by EPA or had EPA extended the TMDL deadline to May 2011 as requested by states during the process, this crunch would not have occurred.

Response

Please see response to comment 0060.1.001.001. As acknowledged, the timeframe for the public meetings in West Virginia was based on state recommendations. The Draft Bay TMDL document has been available on the Bay TMDL web site since the start of the public comment period. In addition, webinars broadcast from each state and the District of Columbia were available on the Internet for listeners throughout the watershed who had an opportunity to ask questions on line. The webinar registration links were on the Bay TMDL web site.

Comment ID 0411.1.001.009

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

8. Insufficient time and information has been provided to the City from EPA to fully evaluate the proposed TMDL requirements.

Response

With regard to the time involved to evaluate the proposed TMDL requirements, please see response to comment 0060.1.001.001.

With regard to the information available:

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Comment ID 0416.1.001.001

Author Name: Paulson Eric

Organization: Virginia State Dairymen's Association (VSDA)

One of the areas of concern for VSDA was the greatly shortened public comment period that EPA provided. 45 days is far too short of a time for the public to digest the several hundred page document that will have far reaching effects on several aspects of their lives. We are concerned that this shortened timeline still stifle public input.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0419.1.001.012

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

VI. EPA HAS FAILED TO PROVIDE A REASONABLE OPPORTUNITY TO REVIEW AND COMMENT ON THE

PROPOSED ALLOCATIONS

VAMWA, VAMSA, and HRPDC are also commenting on EPA's failure provide stakeholders with a reasonable opportunity comment on this massive, complex, and controversial TMDL. The Communities agree with these comments and incorporate them by reference rather than repeating them here.

VAMWA's, VAMSA's, and HRPDC's comments note (and we agree) that a 45-day period is far too short to review and comment on the over 2,000 pages of documents posted on the docket. Moreover, the 45-day comment period is inconsistent with Executive Order 12,866, which provides that most rulemakings should include a comment period of not less than 60 days, as well as EPA's own Public Involvement Policy, which stipulates that "the comment period for public review of unusually complex issues or lengthy documents generally should be no less than 60 days".[FN7]

[FN7] See Public Involvement Policy of the U.S. Environmental Protection Agency (EPA 233-8-03-002 - May 2003) at page 13.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

With regard to the complexity of the TMDL, please see response to comment 0153.001.003.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0436.1.001.018

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

EPA HAS FAILED TO PROVIDE THE LOCALITIES WITH A REASONABLE OPPORTUNITY TO REVIEW, EVALUATE, AND COMMENT ON THE BASIS FOR THE PROPOSED ALLOCATIONS.

A. The length of the comment period is insufficient given the size of the docket and the complexity of the TMDL.

Although EPA has characterized this as the largest and most complex TMDL ever developed, it is providing only a 45-day period to review and comment on the over 2,000 pages of documents posted on the docket. While we recognize that EPA has a certain amount of latitude in establishing the length of its comment periods, we submit that in this case, EPA has abused its discretion and effectively deprived stakeholders such as the Localities with a reasonable opportunity to comment on this very complex and controversial proposal.

The 45-day comment period is inconsistent with Executive Order 12866, which provides that most rulemakings should include a comment period of not less than 60 days, as well as EPA's own Public Involvement Policy, which stipulates that "the comment period for public review of unusually complex issues or lengthy documents generally should be no

less than 60 days". [FN 8] Further, even a 60-day comment period would be too short in this case as reflected in the fact that EPA has established comment periods longer than 60 days for large, complex or controversial proposals such as this TMDL. Examples include EPA's 2010 proposed Water Quality Standards for Florida's Lakes and Flowing Waters (90-day comment period); EPA's 2009 proposed Renewable Fuel Standard (120-day comment period); EPA's 2001 proposed Electronic Reporting Rule (180-day comment period).

[FN 8] See Public Involvement Policy of the U.S. Environmental Protection Agency (EPA 233-B-03-002) - May 2003 - at page 13.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0450.1.001.001

Author Name: Yates J.

Organization:

First, I want to express my displeasure with EPA's decision to close public comments only two business days after completing public meetings in West Virginia. While we have had the document to review, we did not have the verbal comments and presentations to accompany the written WV WIP plan and subsequent EPA evaluation. Therefore, I feel my comments cannot fully express a thorough and effective scientific evaluation of the TMDL, the state WIP, the federal response or the public meeting presentations! That being said, I will still attempt to respond to several issues I have found in the aforementioned documents and question several premises used in the specific arguments related to the TMDL process, planning procedures and coming implantation. I will make these comments in accordance with my constitutional right to be heard, but feel you have not honored my perspective by simply refusing ample time to generate a significant response.

Response

The Draft Bay TMDL document has been available on the Bay TMDL web site since the start of the public comment period on Sept. 24, 2010. In addition, webinars broadcast from each state and the District of Columbia were available on the Internet for listeners throughout the watershed who had an opportunity to ask questions on-line. The webinar registration links were on the Bay TMDL web site. Also on the Bay TMDL web site were the EPA evaluations of the individual state and D.C. Watershed Implementation Plans (WIPs) as well as the plans themselves. The schedule for the public meetings was determined in consultation with the respective states. The Draft WIPs were not part of the Draft TMDL, but were used to inform the document. The states determined the process for review and comment on the WIPs.

Comment ID 0450.1.001.007

Author Name: Yates J.

Organization:

It also speaks very poorly of the mindset of those at EPA that so callously dismissed questions about the timing of the public meetings and the very short turnaround time for closing of the public comment period. Keep in mind that this accelerated time frame was clear in the decision to accelerate the entire process by six months.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0450.1.001.009

Author Name: Yates J.

Organization:

In closing, let me conclude with some general thoughts, specific recommendations and finally a serious question about our society. I found the entire process for the TMDL development, the state WIP and subsequent EPA evaluation and the public comment section to be unnecessarily rushed, hurried and at times thoughtlessly presented (the response to why WV was last with only 2 business days for response).

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the

Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

The Watershed Implementation Plans (WIPs) were developed by the states and the District of Columbia and are not part of the TMDL. The respective jurisdictions determined the process for review of their WIPs.

Finally, the dates of the West Virginia public meetings were determined based on state preference. They were advertised in a Federal Register Notice prior to the start of the public comment period and included in press releases sent by EPA. Notice and information on the meetings was included in media news stories in advance of the sessions.

The public comment period for the draft Bay TMDL was widely publicized and the notice was widely disseminated. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010. There were 18 public meetings held across the watershed, seven of which were broadcast live over the Internet with an opportunity for listeners to ask questions. The webinar registration links were on the Bay TMDL web site.

Comment ID 0467.1.001.004

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

I. Public Comment Period is Inadequate

A. In general, EPA provided insufficient time to review and comment on the draft TMDL, given the amount of data and the availability of such data that were used in the development of the draft TMDL.

B. There is not sufficient latitude in the TMDL implementation schedule to allow EPA time to consider all public comment and then to revise the draft TMDL. The impact of the TMDL will be felt for decades and will cost billions of dollars to implement. The schedule is not considerate of the weight of the issues presented in the draft TMDL.

C. Because the Bay TMDL will generate numerous comments, it will be impossible for EPA to appropriately consider the comments submitted within the current schedule. By not seeking an extension of time with the courts in this instance when in numerous other instances EPA has sought extension where a court-imposed deadline did not provide

adequate time, EPA appears to have pre-ordained the final Bay TMDL content and has reduced the benefit of the public comment process.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The schedule allowed sufficient time for EPA to consider public comments and revise the TMDL. A team of EPA sector experts began reviewing and preparing responses to the public comments once they began to be entered in the docket shortly after the public comment period began on September 24, 2010. The comments were taken into consideration by EPA as it moved from the draft to a final TMDL.

Comment ID 0467.1.001.029

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Page 3 Background

There is not sufficient time in the schedule to consider public comment and then to revise the WIP. The impact of the WIP and the Chesapeake TMDL will be felt for decades and will cost hundreds of millions if not billions of dollars to implement. The schedule is not considerate of the weight of the issues presented in the WIP and the Bay TMDL.

Response

For several months, EPA worked closely with the states and the District of Columbia to strengthen the draft Watershed Implementation Plans submitted to EPA in early September. EPA had numerous constructive meetings and conference calls with each of the jurisdictions and reviewed preliminary WIP submissions. EPA also worked with jurisdictions after the submittal of final WIPs to minimize or eliminate the possibility of federal backstop measures.

With regard to the public comment period, please see response to comment 0060.1.001.001.

Comment ID 0476.1.001.004

Author Name: Farasy Thomas

Organization: Maryland State Builders Association (MSBA)

4. EPA's hurry-up mode of developing the TMDL and the very short public comment period cannot lead to a well-thought-out program; and likewise with the lack of stakeholder input as the TMDL was developed. Clearly unintended

consequences will arise.

Response

With regard to the time period involved in developing the TMDL, please see response to comment 0060.1.001.001.

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Comment ID 0482.1.001.003

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

As noted above, many of the undersigned organizations, as well as others, have asked EPA to extend the period of time available to comment on the Draft TMDL. Forty-five days is simply insufficient to provide meaningful public review of the Draft TMDL. However, it is not only the length of the comment period that is inadequate. EPA also has failed to provide the public with sufficient information to make meaningful comments.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars, and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting

agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0482.1.001.004

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

A. Forty-Five Days is an Inadequate Comment Period for the Draft TMDL. As noted above, EPA acknowledges that the "Chesapeake Bay TMDL is the largest, most complex TMDL in the country, covering a 64,000-square-mile area in seven jurisdictions." Draft TMDL, at 2-7. In this TMDL, EPA is proposing two separate sets of load allocations and waste load allocations for three pollutants in 92 water body segments. See Draft TMDL, at Appendix Q. Thus, the Draft TMDL consists of 552 separate TMDLs.

These TMDLs include allocations for 1,006 individual residences, by individually naming the homeowners in Appendix Q. The Draft TMDL also would impose allocations on small entities that raise one or more animals, but are not large enough to require a permit under the Clean Water Act. According to the U.S. Department of Agriculture, in 2002 there were a total of 111,692 livestock operations of all sizes in Virginia, West Virginia, Maryland, Delaware, Pennsylvania, and New York. In 2001, EPA estimated the total number of animal feeding operations with 300 animal units or more in these states to be 4,360. While these are statewide numbers, and the number of operations in the Chesapeake Bay watershed will be smaller, these numbers indicate that a very large number of small livestock operations could be affected by the Draft TMDL. At this point, the potentially affected small farms are not individually listed in the Draft TMDL, but the threat to subject them to federal regulation is there.

Further, the Draft TMDL that EPA made available for review on Sept. 24, 2010, consists not only of these wasteload and load allocations, but also consists of detailed implementation instructions directed at the watershed jurisdictions. Thus, the Draft TMDL consists not only of the 370 pages of the Draft TMDL document, but also the 1,672 pages of the 22 appendices, as well as the technical analysis and modeling information that is referenced throughout the draft TMDL.

Although the APA does not specify the length of a comment period, it must be reasonable. Executive Order 12866 provides that most rulemakings "should include a comment period of not less than 60 days." Given the economic and social significance of the Chesapeake Bay TMDL, 45 days is an insufficient period of time for affected members of the public to learn about, evaluate, and comment on the Draft TMDL.

In denying the request of Congress Goodlatte and Congressman Holden for an extension of the public comment period, EPA cites the deadlines that EPA imposed on itself through Executive Order 13508 and through a settlement agreement with the Chesapeake Bay Foundation (CBF). An Executive Order is within the control of the Obama administration and can be changed. With respect to the Dec. 31, 2010, deadline agreed to by EPA in a settlement agreement with the CBF, we respectfully submit that it is clear that this deadline does not provide for meaningful public comment and should be changed. In fact, because the deadline is in a settlement agreement and not a judicial consent

decree, EPA need only ask CBF to agree to an extension. Even if CBF is unwilling to agree to a modification of the settlement agreement, the only remedy CBF has under that agreement is to reinstate its lawsuit against EPA, a position we believe is without merit.

EPA denied all other requests for an extension of the comment period on October 25, 2010, by posting a "Statement on EPA Decision Not to Extend the Bay TMDL Public Comment Period" on its website.

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StatementonBayTMDLCommentPeriod.pdf In addition to the reasons given to the Congressmen, this statement relies on EPA's outreach efforts and interactions with states to justify a 45-day comment period.

Self-imposed deadlines, summary overviews of the TMDL in PowerPoint presentations, and non-public discussions with states, do not justify EPA's failure to provide the public with access to the information that EPA used to make its policy choices and EPA's failure to provide any person with adequate time to evaluate and offer comments on that information. Thus, the reasons provided by EPA for refusing to extend the period of time for the public to comment on the Draft TMDL are without merit.

Response

EPA respectfully disagrees that its statement on the public comment period is without merit.

Although the Bay TMDL is a detailed document, the public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as

the process has evolved.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0493-cp.001.001

Author Name: Yates K.

Organization:

There is not enough time to issue valid comments for West Virginia due to the fact that EPA presented public meetings with no more than two business days between the meeting date and the close of comments. No one can accurately assess the plan, the EPA backstops and the public meeting presentation accurately in this amount of time!

Response

Please see response to comment 0060.1.001.001. The timeframe for the public meetings in West Virginia was based on state recommendations. The Draft Bay TMDL document has been available on the Bay TMDL web site since the start of the public comment period. In addition, webinars broadcast from each state and the District of Columbia were available on the Internet for listeners throughout the watershed who had an opportunity to ask questions on line. The webinar registration links were on the Bay TMDL web site.

Comment ID 0496.1.001.003

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

- The EPA has failed to provide the localities with a reasonable opportunity to review, evaluate, and comment on the basis for the proposed allocations.

Response

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities on the local scale, such as county, conservation district or small watershed.

Comment ID 0496.1.001.015

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

IV. EPA HAS FAILED TO PROVIDE THE LOCALITIES WITH A REASONABLE OPPORTUNITY TO REVIEW, EVALUATE, AND COMMENT ON THE BASIS FOR THE PROPOSED ALLOCATIONS.

A. The length of the comment period is insufficient given the size of the docket and the complexity of the TMDL. Although EPA has characterized this as the largest and most complex TMDL ever developed, it is providing only a 45-day period to review and comment on the over 2,000 pages of documents posted on the docket. While we recognize that EPA has a certain amount of latitude in establishing the length of its comment periods, we submit that in this case, EPA has abused its discretion and effectively deprived stakeholders such as the Localities with a reasonable opportunity to comment on this very complex and controversial proposal.

The 45-day comment period is inconsistent with Executive Order 12866, which provides that most rulemakings should include a comment period of not less than 60 days, as well as EPA's own Public Involvement Policy, which stipulates that "the comment period for public review of unusually complex issues or lengthy documents generally should be no less than 60 days".[FN8] Further, even a 60-day comment period would be too short in this case as reflected in the fact that EPA has established comment periods longer than 60 days for large, complex or controversial proposals such as this TMDL. Examples include EPA's 2010 proposed Water Quality Standards for Florida's Lakes and Flowing Waters (90-day comment period); EPA's 2009 proposed Renewable Fuel Standard (120-day comment period); EPA's 2001 proposed Electronic Reporting Rule (180-day comment period).

[FN8] See Public Involvement Policy of the U.S. Environmental Protection Agency (EPA 233-B-03-002 - May 2003) at page 13.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0507.1.001.005

Author Name: Sullivan Sean

Organization: Liberty University and Thomas Road Baptist Church

An agency must:

[G]ive interested persons an opportunity to participate in the rulemaking through submission of written data, views or arguments.[FN34]

An agency notice of proposed rulemaking must:

[P]rovide sufficient detail and rationale for the rule to permit interested parties to participate meaningfully[FN35]

As EPA is aware:

An agency commits serious procedural error when it fails to reveal portions of the technical basis for the proposed rule in time to allow for meaningful commentary.[FN36] In light of these principles of administrative law, EPA risks reversal of the Draft TMDL unless it immediately extends the comment period for at least 180 additional days after the agency makes all of its modeling and related data available to the public.

[FN34] *Solite Corp. v. EPA*, 952 F.2d 473,484 (D.C. Cir. 1991) (quoting *Connecticut Power & Light Co. v. NRC*, 673 F.2d 525, 530-31 (D.C. Cir 1982)).

[FN35] *Complex Horsehead Resource Development Co. v. EPA*, 16 F.3d 1246, 1268 (D.C. Cir. 1994) (quoting *Fertilizer Inst. v. EPA*, 935 F.2d 1303, 1312 (D.C. Cir. 1991)).

[FN36] *Solite Corp. v. EPA*, 952 F.2d 473, 484 (D.C. Cir. 1991) (quoting *Connecticut Power & Light Co. v. NRC*, 673 F.2d 525, 530-31 (D.C. Cir 1982)).

Response

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two

years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

As soon as model scenario input decks and outputs, documentation, and other related information were available, EPA made it available first to its jurisdictional partners and then to the public. As documentation on the suite of Bay models and the Scenario Builder was written and reviewed, EPA posted drafts and then final versions of that documentation. In many cases, EPA, working with its partners, was making decisions throughout the Bay TMDL development process that directly affected the formulation of model scenarios or was required prior to finalizing documentation. EPA took all possible steps to share data, information, and documentation in real time as it was being generated, reviewed and accepted.

EPA also took steps to ensure the underlying model code for the key modeling tools was available to its partners and the public, as part of a larger effort to make the models themselves, in addition to the input decks and the scenario outputs, as transparent as possible.

EPA made the Scenario Builder documentation available on 9/16/2010, the Scenario Builder code available on 10/29/2010, and the support database during the period 11/1-11/5/2010. The documentation, code, and database have been publically available at <ftp://ftp.chesapeakebay.net/Modeling/ScenarioBuilder/>. The scenario builder inputs and outputs have been publically available at ftp://ftp.chesapeakebay.net/Modeling/phase5/Phase53_Loads-Acres-BMPs/. As new management scenarios were developed using Scenario Builder and run as input decks through the Phase 5.3 Chesapeake Bay Watershed Model, those new results were made publically accessible through the same FTP site. The Phase 5.3 Chesapeake Bay Watershed Model, used in the development of the Bay TMDL, has been available at <http://ches.communitymodeling.org/models/CBPhase5/index.php>

The technical direction on development and review of the Scenario Builder has been accomplished through collaborative meetings and conference call of several groups within the Chesapeake Bay Program partnership's organizational structure. Prominent among these are the Water Quality Goal Implementation Team, the Modeling Workgroup, the Agricultural Nutrient and Sediment Reduction Workgroup (NRCS and University of Maryland representatives are co-chairs), the Urban Stormwater Workgroup, the Forestry Workgroup, and the Wastewater Workgroup. All of these meetings were open to the public. Each has broad representation from state and federal government, academics, and stakeholder groups. Links to records of these meetings and conference calls are be found in Appendix C of the final Bay TMDL. These links provide direct access to the briefing materials

prepared in advance of the meeting/conference call, the presentations given during the meeting/conference call, and the summary of decisions/actions coming out of the meeting/conference call.

After more than five years of development work, calibration and validation were completed in March 2010 and reviewed and approved by several of the above groups. All the Phase 5.3 Watershed Model calibration results are accessible at ftp://ftp.chesapeakebay.net/Modeling/phase5/Phase%205.3%20Calibration/Calibration_pdf/all_validation.pdf.

The Chesapeake Community Modeling Program, an organization supported by and staffed by academic institutions across the Chesapeake Bay watershed, hosts the open-source code of the Chesapeake Bay Phase 5.3 Watershed Model on its website. This model code has been accessed by and is being used by numerous academic institutions, states and others in supporting local, regional and state-wide decision making. The Phase 5.3 Watershed Model's code can be accessed at the Chesapeake Community Modeling Program's website at <http://ches.communitymodeling.org/models/CBPhase5/datalibrary.php>.

For more detailed documentation, please access the Phase 5.3 Chesapeake Bay Watershed Model report at http://www.chesapeakebay.net/model_phase5.aspx?menuitem=26169.

Comment ID 0515.1.001.020

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

J. The EPA Did Not Provide an Appropriate Comment Period In This TMDL Process

The EPA did not provide a public comment period of sufficient length considering the size and scope - as well as the anticipated impact - of the TMDL. See, Section II in our October 29, 2010 letter (on-line Comment Docket Comment Attachment #145.1) describing that, because the "Chesapeake Bay TMDL [i] is the largest, most complex TMDL in the country", [ii] will be used as a precedent-setting model for future nutrient reduction programs and TMDLs, and [iii] touches on many policy as well as legal issues, provision of adequate time for public input is vital and affords substantial benefits to both the EPA and the public. Our Board believes that the 45 days allowed has been insufficient under the Administrative Procedure Act ("APA") to provide for meaningful, fully-informed public comment on the Bay TMDL by any person or entity, and did not conform to Executive Order No. 12866, providing that most rulemakings "should include a comment period of not less than 60 days." [FN1] As noted several places in this letter, we have not had adequate time to provide more detailed analysis and better-informed comments and suggestions.

[FN1] - Exec. Order 12866, 58 Fed. Reg. 51,735 (Sept. 30, 1993).

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0528.1.001.010

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

II. EPA HAS FAILED TO PROVIDE SPOTSYLVANIA WITH SUFFICIENT TIME TO REVIEW, EVALUATE, AND COMMENT ON THE DRAFT TMDLs

Despite the enormous size and complexity of the TMDL documents released on September 24, 2010 the socio-economic consequences of the proposed allocations, and the arbitrary nature of EPA's decision to establish the TMDLs by December 31, 2010 when it could have given the public additional time to comment had it taken advantage of the May 2010 deadline in the consent decree, Spotsylvania does not have sufficient time nor staff to adequately review and respond to the draft TMDLs in detail. Spotsylvania will defend vigorously any claim of waiver due to failure to submit comments to the TMDLs on the basis that insufficient time was given to adequately respond.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Bay TMDL schedule was not arbitrarily determined. The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator.

The 45-day public comment period was also the product of negotiation and agreement among the states and EPA. The December 31, 2010 date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010. In addition, a settlement agreement between EPA and the Chesapeake Bay Foundation requires EPA to issue the final TMDL by this date.

The Bay TMDL is a detailed document. That this why the TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry

representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0571.1.001.007

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

a. Inadequate Time has been Provided for Review and Comment.

The Chesapeake Bay TMDL is a very complex, innovative and far-reaching new rule. Because of the impact the TMDL will have on the home building industry, communities, and the overall region, it is imperative that it be finalized only after all parties are provided sufficient opportunity to give careful thought and consideration to all aspects of the proposal and its supporting documents. EPA's efforts to accelerate the TMDL's completion by cutting a most important element in the development of the Bay restoration program - the public review and comment period - is misguided and wrong. We strongly urge the agency to provide the public more, not less time.

Under the Administrative Procedure Act (APA), a "[g]eneral notice of proposed rulemaking shall be published in the Federal Register" and the agency must "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments." [FN 5] "The opportunity to comment must be a meaningful opportunity." [FN 6] Section 553 is designed to ensure that affected parties have an opportunity to participate in and influence agency decision making at an early stage, when the agency is more likely to give real consideration to alternative ideas." [FN 7]

The proposed Chesapeake Bay TMDL is a combination of 92 smaller TMDLs for individual tidal segments. It consists of 333 pages of main text and includes 22 appendices, some of which contain hundreds of pages of data. Furthermore, the Chesapeake Bay watershed touches six states and the District of Columbia and encompasses 64,000 square miles of land. Yet, the agency has provided the public with only 45 days to provide comments on its proposal and plans to finalize the TMDL by the end of December 2010. The 45-day time period does not allow the public to review all 92 "sub-TMDLs," or analyze the data and provide comments to allow the agency to make a better informed decision.

Furthermore, the TMDL is just one of several restoration actions under way. Amid the implementation of the directives of the Chesapeake Bay Executive Order 13508, the state WIPs, and newly proposed or revised MS4 programs, EPA

has proposed a TMDL with an unprecedented broad scope. In addition, the agency has recently scheduled a series of "listening sessions" during the TMDL comment period to discuss new Chesapeake Bay-specific portions of the national post-construction stormwater rule the agency is developing. EPA plans for that rule to have Chesapeake Bay-specific requirements that will come on top of the TMDL requirements. These similar, overlapping, but entirely different rules and their public meetings are confusing even to those intimately familiar with the national stormwater regulatory structure. Those most able to comment on the proposed TMDL and the post-construction rule are already occupied with analyzing and commenting on their revised state Phase I WIP.

Recognizing these challenges, on Oct. 15, 2010, NAHB submitted to the Chesapeake Bay TMDL docket, EPA-R03-OW-2010-0736, a request for extending the public comment period for the proposed TMDL by another 180 days and provided a detailed explanation of the reasons NAHB said that the request was prudent and necessary (see attachment A). Others filed similar requests, including twenty-one members of Congress. On Oct. 22, EPA responded to Congressman Goodlatte, stating "it is not feasible to extend the public comment period on the draft Chesapeake Bay TMDL past November 8, 2010 and therefore delay finalization of the TMDL by December 31, 2010." [FN 8] Reasons cited in the letter include an agreement that was made in June, 2008, negotiations between the states and EPA, a commitment included in the Executive Order 13508 Final Strategy and the settlement agreement between EPA and the Chesapeake Bay Foundation.

Importantly, contrary to EPA's contention, none of these agreements are legally-binding or unchangeable. Agreements can be renegotiated and commitments can be revised, and because the current deadline is simply an agreed-to date within a court settlement, EPA can renegotiate.[FN 9] In fact, the Settlement Agreement gives EPA flexibility to extend the Dec. 31 deadline and certainly does not limit or modify EPA's discretion to allow the public sufficient time to review and comment on the 92 Bay TMDLs.[FN 10]

NAHB stands by its earlier request to extend the public comment period and reiterates the negative impacts that will accrue by foregoing such a vital part of the rulemaking process. EPA owes the Chesapeake Bay communities, citizens, and stakeholders more than 45 days to analyze and comment on a proposed rule that will have a major impact on the lives of all people living and working in the Chesapeake Bay watershed. Likewise, as EPA intends for this TMDL to serve as a precedent for the nation, the public must be afforded sufficient time to review, understand, and provide meaningful comment. Finally, NAHB is extremely concerned that the time frame between the end of the comment period and Dec. 31 is not long enough for the agency to truly consider alternative ideas that may be provided by the public.

It is EPA's responsibility to schedule its regulatory activities to ensure that the public has sufficient opportunities for participation and sufficient time for review and comment. Likewise, the agency must give itself sufficient time to meet its rulemaking obligations. The agency has failed in both regards, with the many, overlapping, and confusing Bay-related regulatory proposals that it has issued in the latter part of 2010. EPA is urged to:

1. Extend the comment period for the proposed TMDL to allow adequate stakeholder input to the process,

[FN 5] 5 U.S.C. §§ 553(b) & (c).

[FN 6] *Rural Cellular Ass'n v. Federal Comm'n's Comm'n*, 588 F.3d 1095, 1101 (D.C. Cir. 2009); *Gerber v. Norton*, 294 F.3d 173 (D.C. Cir. 2002).

[FN 7] *Dismas Charities, Inc. v. U.S. Dept. of Justice*, 401 F.3d 678 (6th Cir. 2005) (quoting *U.S. Steel Corp. v. EPA*, 595 F.2d 207, 214 (5th Cir.1979)).

[FN 8] Arvin Ganesan, Deputy Associate Administrator for Congressional Affairs, U.S. Environmental Protection Agency, letter to Congressman Bob Goodlatte, October 22, 2010.

[FN 9] *Fowler v. EPA Settlement Agreement*, Section IV.A. ("[t]he parties may modify any deadline or other term of this agreement in writing.").

[FN 10] *Fowler v. EPA Settlement Agreement*, Sections VI.A, D, & E. (noting that the agreement does not limit or modify EPA's discretion under the APA or require EPA to violate the APA, and allowing EPA to delay deadlines under certain circumstances upon notice to the plaintiffs).

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

The schedule allowed sufficient time for EPA to consider public comments and revise the TMDL. A team of EPA sector experts began reviewing and preparing responses to the public comments once they began to be entered in the docket shortly after the public comment period began on September 24, 2010. The comments were taken into consideration by EPA as it moved from the draft to a final TMDL.

Comment ID 0571.1.001.025

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

On behalf of the National Association of Homebuilders (NAHB), I respectfully request that the U.S. Environmental Protection Agency (EPA) extend the public comment period for the Draft Total Maximum Daily Load (TMDL) for the Chesapeake Bay, the availability of which was announced in the Federal Register on September 22, 2010, for an additional 180 days. This additional time is needed because of the technical complexity of the proposal and the need to afford all impacted parties an opportunity to fully understand and provide meaningful comments. It is also needed so that EPA can make all of the supporting documents available for review.

NAHB is a trade association representing more than 175,000 members involved in home building, remodeling, multifamily construction, property management, subcontracting, design, housing finance, building product manufacturing and other aspects of residential and light commercial construction. Known as "the voice of the housing industry," NAHB is affiliated with over 800 state and local home builders associations around the country. NAHB's

builder members will construct about 80 percent of the new housing projected for 2010. Because of the nature of their work, most of our members must obtain and operate pursuant to National Pollutant Discharge Elimination System (NPDES) permits for controlling the stormwater discharges stemming from their construction activities. The Chesapeake Bay TMDL's requirements will become a part of the stormwater permits issued for homebuilding projects in the Bay watershed. The Chesapeake Bay TMDL is a very complex, innovative and far-reaching new rule. Because of the impact the TMDL will have on the home building industry, communities, and the overall region, it is imperative that it be finalized only after all parties are provided sufficient opportunity to give careful thought and consideration to all aspects of the proposal and its supporting documents. EPA's efforts to accelerate the TMDL's completion by cutting a most important element in the development of the Bay restoration program - the public review and comment period - is misguided and wrong. Contrary to this approach, the Agency is strongly urged to provide the public more, not less time. NAHB believes that EPA should extend the comment period for a minimum of 180 additional days.

A Complex Proposal Demands Sufficient Review

EPA acknowledges that the Chesapeake Bay TMDL will be the largest, most complex TMDL in the country, and it will be held up to the nation as the bar to meet for the future nutrient reduction programs that will take place around the U.S.; yet EPA is, at the same time, proposing to short shrift the public by limiting its ability to study the proposal and offer comment. Indeed, EPA has asked the public to review and comment on the lengthy proposal and supporting documentation including state Watershed Implementation Plans, a highly-technical pollutant reduction model, land use assumptions, and 22 appendices. Appendix B alone includes a list of documents supporting the Chesapeake Bay TMDL that spans 16 pages - all of which should be analyzed and understood before making comment. Taken together, the sheer volume of information amounts to thousands of pages that cannot realistically be reviewed and analyzed within the given 45-day comment period. Moreover, because the proposal raises many legal and policy issues, careful consideration and research will be needed before suggested solutions can be drafted.

While the Administrative Procedure Act (APA) does not specify a minimum time period for comment on a proposed rule, Executive Order (EO) No. 12866 provides that most rulemakings "should include a comment period of not less than 60 days." [FN 41] Likewise, for most TMDLs, EPA and the states provide a minimum of 60-90 days for public input. For example, EPA recently provided a public comment period of 60 days for the Accotink Creek TMDL in Virginia in the summer of 2010. Accotink Creek represents only one TMDL, vs. the 94 segments, or individual TMDLs, that make up the overall Chesapeake Bay TMDL. Following this example, it would be plausible that the Agency provide a 5,640 day comment period for the Chesapeake Bay TMDL (60 days per TMDL x 94 segments). NAHB is merely asking for additional 180 days.

Furthermore, when the Agency has offered insufficient time to review similarly complex and expansive rulemakings, EPA has recognized the mistake, extended the comment period, and issued the complex rulemaking after due time for consideration. For example, EPA proposed 80 TMDLs in Louisiana and originally offered the public only 30 days for review and comment. [FN 42] Not surprisingly, EPA received several requests to extend the comment period, so EPA agreed to accept comments for an additional 60 days. [FN 43] After reviewing comment from stakeholders who had additional time to review the data, EPA finalized the 80 TMDLs 7 months later. [FN 44]

Finally, because EPA has plainly stated that the Chesapeake Bay TMDL will be used as a model for other waterbodies across the country, it is all the more important that the TMDL be accurate and fully vetted. A TMDL that cannot meet its intended goals serves no one. Allowing sufficient opportunity for the public to participate in forming the rule and

providing input on the actions that can be taken to meet the goals will better ensure that the TMDL is not only practical and effective, but that it will be properly implemented.

The Technical Data and Cost Information Are Not Readily Available

In addition to proposing a TMDL that is highly complex and confusing, EPA has not made all of the supporting documentation available for review. As a result, it is impossible for the public to fully understand the Agency's reasoning or follow its justifications. For example, EPA has provided no technical data to justify the need for the urban stormwater requirements contained in the backstop allocations or to demonstrate that they will meet the desired outcomes. Likewise, information on costs or the best management practices that can be used to meet the urban stormwater requirements have not been made available. Other technical and cost data is similarly absent from the docket, as is any way to quickly understand how the proposal will affect the various industries, communities, or individuals within the watershed. If the public does not have access to these baseline datasets, it is unable to provide meaningful comment. Similarly, if the public cannot understand how the proposal will affect their interests or businesses, their ability to provide useful input is significantly hindered. EPA is obligated to make all supporting information and documents available to the public prior to the start of the public comment period and to provide sufficient opportunities for its thorough review. The existing docket and schedule fails to do so.

The Breadth of Impacts Warrants Broad Opportunities for Participation

The Bay TMDL will impose additional, extraordinarily difficult regulatory requirements on the home building industry and the citizens and communities located around the Bay. As such, it is imperative that the TMDL get a thorough examination not just by home builders, but by all stakeholders. Not only will a 45 day review period fail to provide sufficient time for the public to conduct a meaningful review or the develop insightful comments that would result from that review, for most stakeholders, the publication of the proposal is the first glimpse they have gotten into the sweeping breadth of the rule, the assumptions that EPA has made concerning their industries, and the many details that may affect their particular businesses and/or properties located within the Bay's watershed.

Unlike other similar efforts, EPA has failed to include the public or the affected parties in developing the TMDL. While the Agency has held numerous meetings on the effort (outlined in Appendix V), very few have been targeted to those industries or stakeholders who will be impacted. For example, NAHB has been monitoring and participating in EPA's activities since 2009 (the overall regulatory effort began in 2008) and that was only after NAHB conducted significant due diligence and convinced the Agency to allow us to participate. In the technical meetings that NAHB has attended leading up to the proposal and on the technical conference calls in which we have listened in; we cannot recall a single representative of another industry at any of those meetings or on any of the calls. This represents a significant flaw in the Agency's process.

As a result of this failure to communicate or allow broad participation, the vast majority of industrial sectors that will be impacted by the TMDL have only just become aware of the coming rule and the potential severity of its requirements. The public meetings that EPA is currently holding may help in this regard, but many stakeholders will need more than the allotted 45 day comment period to fully understand the proposal and provide adequate technical comments on the draft rule. Indeed, EPA states that the goal of these meetings is "to assist the public in their understanding of the Draft Bay TMDL and provide an overview of the TMDL process, especially the stakeholder review and comment process." [FN 45] For stakeholders in Romney, West Virginia who are hoping to use their November 4 public meeting as an

opportunity to be introduced to EPA's effort, their public comment period has effectively been reduced to 4 days (two if one only counts business days).

Only people who work in the affected industries can possibly know in full how the proposed rule will impact their operations and how their portion(s) of the rule will work in the real world. Therefore, their review and comment is absolutely necessary to fine tune the requirements and ensure the proper balance between environmental stewardship and the economic impacts is made. In order to ensure that these entities can make their voices heard, EPA must extend the comment period.

EPA Retains Authority to Revise the Timeline/Allow a Longer Comment Period

EPA continually points to the TMDL schedule included in its May 2010 settlement with former Maryland state senator C. Bernard Fowler, the Chesapeake Bay Foundation, Maryland and Virginia watermen's associations, and others in *Fowler v. EPA* that calls for the completion of the Bay TMDL by December 31, 2010 as the reason for a truncated public review. The Agency, however, has full authority to revise the schedule and timeline to allow for a sufficient comment period. Indeed, because the current deadline is simply an agreed-to date within a court settlement, EPA can renegotiate. [FN 46] In fact, the Settlement Agreement gives EPA flexibility to extend the December 31 deadline and certainly does not limit or modify EPA's discretion to allow the public sufficient time to review and comment on the 94 Bay TMDLs.[FN 47] Because the very purpose of the public comment process is to allow stakeholders to analyze the proposal and provide comments and suggestions that may improve the effectiveness and lower the costs of the rule, providing additional time for this vital and necessary input provides benefits to both the Agency and the public.

It is only fair that the public be given ample time and opportunity to participate in the development and finalization of this important and sweeping proposal. The Chinese saying: "Find enlightenment through heeding many points of view. Find ignorance through heeding few" is one EPA should follow. EPA needs to give stakeholders the broadest opportunity possible for them to fully understand and make their suggestions on the proposed rule. The best way to do that is to provide a minimum of 180 additional days for the public comment period for the proposed Bay TMDL

[FN 41] Exec. Order 12866, 58 Fed. Reg. 51735 (September 30, 1993).

[FN 42] 71 Fed. Reg. 41217 (July 20, 2006) (setting August 21, 2006 as the original deadline for public comment).

[FN 43] 71 Fed. Reg. 59504 (Oct. 10, 2006) (agreeing to accept public comment until October 20, 2006, review the comments, and revise or modify the TMDLs as appropriate).

[FN 44] 72 Fed. Reg. 19,703 (Apr. 19, 2007).

[FN 45] 75 Fed. Reg. 5776 (September 22, 2010) (emphasis added).

[FN 46] *Fowler v. EPA Settlement Agreement*, Section IV.A. ("[t]he parties may modify any deadline or other term of this agreement in writing.").

[FN 47] *Fowler v. EPA Settlement Agreement*, Sections VI.A, D, & E. (noting that the agreement does not limit or modify EPA's discretion under the APA or require EPA to violate the APA, and allowing EPA to delay deadlines under certain circumstances upon notice to the plaintiffs).

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

With regard to the complexity of the Bay TMDL, please see response to comment 0153.001.003.

With regard to cost analysis, please see response to comment 0139.0.001.017.

EPA notes that the Bay TMDL is not a federal regulation.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

As soon as model scenario input decks and outputs, documentation, and other related information were available, EPA made it available first to its jurisdictional partners and then to the public. As documentation on the suite of Bay models and the Scenario Builder was written and reviewed, EPA posted drafts and then final versions of that documentation. In many cases, EPA, working with its partners, was making decisions throughout the Bay TMDL development process that directly affected the formulation of model scenarios or was required prior to finalizing documentation. EPA took all possible steps to share data, information, and documentation in real time as it was being generated, reviewed and accepted.

EPA also took steps to ensure the underlying model code for the key modeling tools was available to its partners and the public, as part of a larger effort to make the models themselves, in addition to the input decks and the scenario outputs, as transparent as possible.

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

With regard to stakeholders in Romney, West Virginia, and their opportunity to review and comment on the Bay TMDL, please see above references to the extensive public outreach, including the webinars open to anyone with an opportunity to ask questions. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010.

Comment ID 0573-cp.001.002

Author Name: Tabb B.

Organization:

The EPA did not have the public meetings in WV until Nov.3rd and 4th with the cutoff on comments on Nov. 8th. NOT MOCH TIME FOR COMMENTS FROM WEST VIRGINIA for the plan for the next 15 years.

Response

The public comment period for the draft Bay TMDL was widely publicized and the notice was widely disseminated. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010. There were 18 public meetings held across the watershed, seven of which were broadcast live over the Internet with an opportunity for listeners to ask questions. The webinar registration links were on the Bay TMDL web site.

The dates of the West Virginia public meetings were determined based on state preference. They were advertised in a Federal Register Notice prior to the start of the public comment period and included in press releases sent by EPA.

Comment ID 0591.1.001.003

Author Name: Shields M.

Organization:

In addition, EPA has conveniently determined that it is not feasible to extend the 45-day public comment period past November 8, 2010 and delay finalization of the TMDL.

This leaves all participants with an EPA agenda that is poorly thought through

Response

Please see response to comment 0060.1.001.001.

Comment ID 0602-cp.001.004

Author Name: Comment Anonymous

Organization: Hill Top View Farm

Forty five days is not long enough for public comment

Response

Please see response to comment 0060.1.001.001.

Comment ID 0607.1.001.003

Author Name: Bauhan Hobey

Organization: Virginia Poultry Federation (VPF)

Furthermore, EPA has not followed appropriate administrative procedure in development of the Bay TMDL. A mere 45 days is inadequate and inappropriately brief to receive public comment on the massive, complex materials posted by EPA in the Federal Register on September 24. The draft TMDL document is 370 pages, with 22 appendices consisting of 1,672 pages. It contains complex, highly technical information. It is impossible for citizens to analyze this volume of material and assess its impact within 45 days. This duration thereby effectively denies the public adequate opportunity to comment.

Response

EPA provided the public with adequate opportunity to comment on the draft TMDL.

With regard to the public comment period, please see response to comment 0060.1.001.001.

With regard to the complexity of the TMDL, please see response to comment 0153.001.003.

Comment ID 0654.001.002

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

1. Tyson renews its request for an extension of time for the public comment period. There are literally thousands of pages that still need to be reviewed. Forty five days is simply not enough time to thoroughly review the Draft TMDL and the State WIPs.

Response

Please see response to comment 0060.1.001.001. The WIPs were not part of the Bay TMDL itself. The watershed states and the District of Columbia made their own determinations on public review of the WIPs.

Comment ID 0670-cp.001.003

Author Name: Reese Jodi

Organization: CET Engineering Services

The Public Comment Period needs to be extended beyond 45 days. The truncated public comment period of 45 days is totally inadequate and inappropriate. On September 24, 2010 EPA made available the draft Chesapeake Bay TMDL. The body of the report is 365 pages in length with 23 appendices totaling 262 pages that include seven tables with a total of approximately 22,000 rows of data and information in those tables. Three of these tables list cap loads for all point sources, significant and insignificant. There are 4,390 insignificant point sources listed in these tables that are unlikely aware of their inclusion and their need to review and comment on the TMDL. Forty-five days is not adequate to ensure that contact is made with appropriate representatives of these dischargers.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

As to the awareness of non-significant point sources to the provisions of the TMDL, EPA and the respective watershed states and the District of Columbia have done extensive outreach on the Bay TMDL to the general public and to stakeholder groups, including the wastewater treatment sector. EPA alone has held hundreds of meetings with groups interested and impacted by the Bay TMDL since 2008, placed general and technical information on its public web sites, and conducted numerous interviews with the media to get the word out about this important initiative.

Comment ID 0674-cp.001.001

Author Name: Wells John

Organization: Town of Leesburg, Virginia

Town of Leesburg's comments on the EPA Draft TMDL.

Should you have any questions, please contact Mr. Tom Mason, Director of Public Works for the Town of Leesburg at 703-771-2790.

I'm unable to attach our file in your program. Hard copies are being sent certified mail.

Response

Thank you.

Comment ID 0687.001.002

Author Name: Comment Anonymous

Organization:

3. Public Comment - Do you believe that releasing a +/- 2,500 page document (+/- 800 pages without Appendices) with 45 days for public comment is reasonable?

Response

Please see response to comment 0060.1.001.001.

Comment ID 0689.1.001.032

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

45. In general, EPA provided insufficient time to review and comment on the draft TMDL, given the amount of data and the availability of such data, that were used in the development of the draft TMDL.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0691.1.001.002

Author Name: Kirk Ken

Organization: National Association of Clean Water Agencies (NACWA)

Clearly more work is needed to improve the health of the Chesapeake Bay, but EPA's arbitrary deadlines and aggressive schedules are setting up the process for failure. Underlying all the debate about allocations, reasonable assurance, and backstops is a complex model and volumes of data which stakeholders and the public have simply not had enough time or opportunity to review. EPA should provide the public with more time to review the models and the draft TMDL in order to interact with EPA and support the development of meaningful comment on the TMDL. A 45-day comment deadline is not sufficient for such a complex watershed and TMDL.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Bay TMDL is a detailed document. That this why the TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

The Bay TMDL schedule was not arbitrarily determined. The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor

of the District of Columbia and the EPA Administrator.

The 45-day public comment period was also the product of negotiation and agreement among the states and EPA. The December 31, 2010 date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010. In addition, a settlement agreement between EPA and the Chesapeake Bay Foundation requires EPA to issue the final TMDL by this date.

Comment ID 0699-cp.001.002

Author Name: Garvick Jeffrey

Organization: Board of Commissioners, Pennsylvania Township and York County

The decision not to extend the 45-day comment period is both capricious and arbitrary. Further, it does not provide adequate time for local officials to discuss and assess the financial impact and facility requirements resulting from the stricter limits.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Bay TMDL schedule was not arbitrarily determined. The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator.

The 45-day public comment period was also the product of negotiation and agreement among the states and EPA. The December 31, 2010 date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010. In addition, a settlement agreement between EPA and the Chesapeake Bay Foundation requires EPA to issue the final TMDL by this date.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

Comment ID 0700.001.002

Author Name: Tamberrino Frank

Organization: Harrisonburg-Rockingham Chamber of Commerce

EPA's comment period is much too brief for a measure of this magnitude. The proposed TMDL consists of well over a thousand pages including appendices. Much of this material is highly technical and complicated. It is unreasonable to expect citizens to analyze and understand such a massive measure and file informed comments within such a brief period of time. EPA itself should have provided a comprehensive economic impact analysis and presented it as part of the hearing process.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Bay TMDL is a detailed document. That this why the TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

EPA will not be identifying the total federal, state, local and private cost burden in the TMDL for reasons discussed in the response to comment 0139.1.001.017.

Comment ID 0705.001.004

Author Name: Cuffee-Glenn Selena

Organization: City of Suffolk, Virginia

The EPA has failed to provide the localities with a reasonable opportunity to review, evaluate, and comment on the basis for the proposed allocations.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities on the local scale, such as county, conservation district or small watershed.

Comment ID 0732.001.002

Author Name: Hoagland Roy

Organization: Chesapeake Bay Foundation (CBF)

Given this extraordinary opportunity for public input on the development of the proposed TMDL, along with the long history of Chesapeake Bay restoration efforts and legal obligations to develop the TMDL, recent calls for an extension of the 45-day public comment period are disingenuous, at best. We wholeheartedly support EPA's decision to hold firm on its commitment, and that of the Bay jurisdictions, to complete the Bay TMDL by December 31, 2010, which is also legally supported by our recent settlement agreement with EPA in *Fowler v. EPA*. (Copy of the Notice of Intent of October 29, 2009, Complaint of January 5, 2009, and Settlement Agreement May 10, 2010, attached hereto and incorporated herein by reference.) [Comment Letter contains additional information in the form of an attachment. See EPA-R03-OW-2010-0736-0732.1 for these documents, pages 15, 37, and 79 of pdf.]

Response

EPA agrees that the 45-day public comment period was appropriate for the reasons stated in the response to comment 0060.1.001.001.

Comment ID 0736.001.005

Author Name: Middaugh Robert

Organization: James City County, Virginia

We also request that the EPA reconsider extending the public comment period on the draft TMDL past the November 8, 2010 deadline so that we and other localities throughout the Chesapeake Bay watershed can discuss and consider the resultant impacts of such an initiative.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities on the local scale, such as county, conservation district or small watershed.

Comment ID 0741.001.005

Author Name: Caskey W.

Organization: Isle of Wight County

The EPA has failed to provide the localities with a reasonable opportunity to review, evaluate, and comment on the basis for the proposed allocations.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the

past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities on the local scale, such as county, conservation district or small watershed.

32.4 - PUBLIC NOTICES (FEDERAL REGISTER, NEWSPAPER, ETC.)

Comment ID 0591.1.001.002

Author Name: Shields M.

Organization:

Just as the information below regarding the attendees at the Martinsburg, WV public meeting shows that little effort had been made by the EPA to advertise the meeting held 4-Nov-2010, and then leaving participants 4 days to make a formal response.

I assure everyone that reads this, more people have been kept it the dark than me regarding this initiative as shown with the response below of how people heard about the Martinsburg, WV meeting.

How did you hear about this Meeting?

- Other (14) Chesapeake Bay Implementation Committee (2) Work (2) Word of Mouth (2) Radio WVDEP Local PSD Extension Service • Email/Listserve (11)
- Newspaper (1)
- Other Web Site _____ (0)
- U. S. EPA Web Site (4)

Response

The public comment period for the draft Bay TMDL was widely publicized and the notice was widely disseminated. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010. There were 18 public meetings held across the watershed, seven of which were broadcast live over the Internet with an opportunity for listeners to ask questions. The webinar registration links were on the Bay TMDL web site.

The dates of the West Virginia public meetings were determined based on state preference. They were advertised in a Federal Register Notice prior to the start of the public comment period and included in press releases sent by EPA. Notice and information on the meetings was provided in the media in advance of the sessions, including the Martinsburg Journal, the Associated Press, and an hour-long program on the WEPM-FM "Panhandle Live" show on the morning of November 3.

The West Virginia DEP did extensive outreach to help ensure the public was aware of the EPA public meetings. The DEP met twice with each of the eight county commissions in the Potomac drainage area to provide updates. Local newspapers carried notices of those sessions with the county commissions. The DEP also reached out to watershed groups to provide notice of the public

meetings. In fact, the Opequon Creek Project Team canceled its regularly scheduled meeting that night so its members could attend the EPA public meeting.

Notice of the meetings was also included for months on the DEP and EPA web sites.

32.5 - GENERAL/MISCELLANEOUS

Comment ID 0044.1.001.006

Author Name: Blackwood Lorene

Organization: Virginia Green Industry Council

Again, the Virginia Green Industry Council wants to be a part of the solution.

Response

EPA has welcomed the involvement of individuals, groups, organizations and others in the development of the Chesapeake Bay TMDL. Through the public comment process, public meetings, webinars and other extensive outreach opportunities, EPA has sought feedback and perspective on the TMDL from all Bay stakeholders. There will be additional opportunities for public input as the process continues in 2011 and beyond. More information on the Virginia Bay TMDL efforts, including its Stakeholder Advisory Group, can be found at <http://www.deq.state.va.us/tmdl/chesapeakebay.html>.

Comment ID 0046-cp.001.003

Author Name: Grattan Gil

Organization: Virginia Turfgrass Council

Our industry supports proper application of nutrients, sound agronomic practices with science based decisions and is looking forward to working to solve the problems in the Bay. However, we need assistance and a voice at the table to help both the State of Virginia and the EPA clean up the Bay.

Response

EPA has welcomed the involvement of individuals, groups, organizations and others in the development of the Chesapeake Bay TMDL. Through the public comment process, public meetings, webinars and other extensive outreach opportunities, EPA has sought feedback and perspective on the TMDL from all Bay stakeholders. There will be additional opportunities for public input as the process continues in 2011 and beyond. See Section 11 of the Bay TMDL for a more detailed description of the Public Participation. More information on the Virginia Bay TMDL efforts, including its Stakeholder Advisory Group, can be found at

<http://www.deq.state.va.us/tmdl/chesapeakebay.html>.

Comment ID 0063.1.001.002

Author Name: Jones Martin

Organization: Fertilizer Institute (TFI)

This extension is necessary to provide adequate time to review the voluminous records that support the Draft TMDL and also to provide adequate time to review relevant information forming the bases for certain assumptions in the Draft TMDL that have not been made publically available.

Response

EPA disagrees that the public comment period for review and comment of 45 days is not adequate. EPA also disagrees that the relevant allocations, model information and supporting data made available with the draft TMDL is not adequate. Please also see the response to comment 0060.1.001.001.

Comment ID 0066.1.001.012

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

EPA is obligated to make all supporting information and documents available to the public prior to the start of the public comment period and to provide sufficient opportunities for its thorough review. The existing docket and schedule fails to do so.

Response

The full Draft Bay TMDL and the various appendices with supporting information were available at regulations.gov and through the EPA web site, <http://www.epa.gov/chesapeakebaytmdl> during the public comment period. With regard to the time to review, please see response to comment 0060.1.001.001.

Comment ID 0066.1.001.013

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

The Bay TMDL will impose additional, extraordinarily difficult regulatory requirements on the home building industry and

the citizens and communities located around the Bay. As such, it is imperative that the TMDL get a thorough examination not just by home builders, but by all stakeholders. Not only will a 45 day review period fail to provide sufficient time for the public to conduct a meaningful review or the develop insightful comments that would result from that review, for most stakeholders, the publication of the proposal is the first glimpse they have gotten into the sweeping breadth of the rule, the assumptions that EPA has made concerning their industries, and the many details that may affect their particular businesses and/or properties located within the Bay's watershed. Unlike other similar efforts, EPA has failed to include the public or the affected parties in developing the TMDL. While the Agency has held numerous meetings on the effort (outlined in Appendix V), very few have been targeted to those industries or stakeholders who will be impacted. For example, NAHB has been monitoring and participating in EPA's activities since 2009 (the overall regulatory effort began in 2008) and that was only after NAHB conducted significant due diligence and convinced the Agency to allow us to participate. In the technical meetings that NAHB has attended leading up to the proposal and on the technical conference calls in which we have listened in; we cannot recall a single representative of another industry at any of those meetings or on any of the calls. This represents a significant flaw in the Agency's process.

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

The public comment period for the draft Bay TMDL was widely publicized and the notice was widely disseminated. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010.

With regard to requests to extend the comment period, please see the response to comment 0060.1.001.001.

Comment ID 0066.1.001.014

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

As a result of this failure to communicate or allow broad participation, the vast majority of industrial sectors that will be impacted by the TMDL have only just become aware of the coming rule and the potential severity of its requirements. The public meetings that EPA is currently holding may help in this regard, but many stakeholders will need more than the allotted 45 day comment period to fully understand the proposal and provide adequate technical comments on the draft rule.

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders. Along with the 17 public meetings on the Bay TMDL in the fall of 2009, EPA held dozens of meetings with stakeholders representing a variety of groups.

The public comment period for the draft Bay TMDL was widely publicized and the notice was widely disseminated. The TMDL document was available for review and comment on the Bay TMDL web site beginning September 24, 2010. There were 18 public meetings held across the watershed, seven of which were broadcast live over the Internet with an opportunity for listeners to ask questions. The webinar registration links were on the Bay TMDL web site.

With regard to requests to extend the comment period, please see the response to comment 0060.1.001.001.

Comment ID 0069.1.001.002

Author Name: Nemura Adrienne

Organization: LimnoTech

We also do not believe that the TMDL and the Watershed Implementation Plans (WIPs) were developed with "close interaction with state partners".

Response

EPA has worked side-by-side with its state and District of Columbia partners in developing the TMDL. EPA has also provided extensive hands-on assistance to the states in the development of the WIPs. Through the Chesapeake Bay Program committees, principally the Water Quality Goal Implementation Committee (WQGIT), EPA has closely worked with the jurisdictions on all aspects of the TMDL. A list of meetings of the WQGIT and other meetings involving EPA and the states and D.C. are included as an appendix to this report.

Since September 2005, the seven jurisdictions have been actively involved in decision-making to develop the TMDL. In the October 2007 meeting of the Chesapeake Bay Program's Principal's Staff Committee, the jurisdictions and EPA agreed that EPA would establish the TMDL. Since 2008, EPA has sent official letters to the jurisdictions detailing all facets of the TMDL. Please see Section 1.3 of the Draft Bay TMDL for additional details on coordination among the partners.

Comment ID 0070.1.001.026

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

Article I, Section 27 of the Pennsylvania Constitution provides as follows:

Sec. 27. Natural Resources and the Public Estate

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

This amendment, which was adopted in 1972, encompasses two basic principles. First, Pennsylvanians have a right to a decent environment, and second, Pennsylvania government has a trusteeship responsibility to protect that environment on behalf of future generations. EPCAMR is doing its part to uphold these Constitutional principles. As a public citizen, community leader, and active community volunteer, speaking on behalf of other Coalfield residents, I feel that I have done my part and continue to do so by actively contributing in this democratic public participation process of having my voice heard.

Response

Thank you for participating in the public comment process.

Comment ID 0106-cp.001.002

Author Name: Mosko, Jr. Michael

Organization:

What I have failed to see is a concerted effort on the part of EPA and land owners to sell their respective positions. A good sale man is worth his weight in gold. What I see is a lack of effort to spell out the benefits to all concerned.

Response

In its extensive outreach efforts, EPA has sought to emphasize the significant public health, economic, recreational, cultural and quality of life benefits of the Bay TMDL's clean water outcomes.

Specifically, EPA has noted the benefits to drinking water, to local recreational pursuits like swimming, fishing and boating, and to area economies.

The Bay provides significant economic benefits to the region. An expert panel in 2004 placed the value of the Bay at over \$1 trillion, with an annual economic benefit of \$33 to \$60 billion, based on factors including fishing, tourism, property values, recreation, local business and shipping.

The Bay supports a major tourism economy and the commercial and recreational fishing industries.

Pollution reductions lower drinking water and other utility costs. For every \$1 spent on drinking water protection, an average of \$27 is saved in water treatment costs. Clean water also sustains aesthetic and cultural values.

EPA's outreach effort has involved two rounds of public meetings, monthly webinars, a robust web site, hundreds of stakeholder meetings and extensive media interaction. EPA has highlighted the benefits of the TMDL in all of these activities.

Comment ID 0145.1.001.021

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

We trust that the EPA is interested in both [i] ensuring that the public has access to all of the relevant information and documentation as well as [ii] receiving fully-informed, thoughtful, thorough, specific, and credible comments on this complex draft TMDL and, as such, will grant our requests.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

The Bay TMDL is a detailed document. That this why the TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

Comment ID 0146.1.001.009

Author Name: Isenberg W.

Organization: Virginia Commonwealth University Center for Environmental Studies. Class: ENVS 601, Professor: P.L. deFur

Perhaps the reason I may have missed certain elements may be due to the manner in which it is organized or written. Given that, I do admit that some of the very technical appendices, specifically those related to modeling and statistical analyses were a bit over my head. Admitting my basic lack of understanding there, it still may be worthwhile, especially with regards to effective communication and layman trust, to attempt to make it more clear in the final draft.

Response

EPA's goal is to provide a clear understanding of the Bay TMDL to a variety of audiences. The executive summary, in particular, is designed to offer a basic and concise overview of this initiative. There are some sections that are by necessity more technical than others. EPA's web site, <http://www.epa.gov/chesapeakebaytmdl> is another source of information on aspects of the Bay TMDL.

Comment ID 0174.1.001.010

Author Name: Rolband Michael

Organization: Wetland Studies and Solutions, Inc.

Again, we appreciate the opportunity to provide comments on the Chesapeake Bay Watershed TMDL. We believe that stakeholder involvement is important and will positively contribute to an equitable and cost-effective TMDL that will achieve the Bay goals, and we hope that these comments will help to improve the TMDL document.

Response

EPA agrees that stakeholder involvement is important and positively contributes to the Bay TMDL process.

Comment ID 0194.1.001.003

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

Put yourselves in our shoes, in that we are constantly adjusting to new data and shifts in policy decisions. This is not conducive to having the enormous amount of stakeholders understand what their role is and the role of others.

Response

EPA has made a wealth of information available on the Chesapeake Bay TMDL at every stage in the process. EPA has engaged in an aggressive, transparent outreach program, including meetings, webinars, a robust web site and other avenues, to help stakeholders understand their role and the role of others in the TMDL. EPA met with members of the Pennsylvania Builders Association while it conducted public meetings in Pennsylvania on the TMDL in the fall of 2009 and 2010 to discuss information related to the homebuilder and developer industry.

Comment ID 0214.1.001.004

Author Name: Cuffee-Glenn Selena

Organization: City of Suffolk, Virginia

With those concerns in mind, the City of Suffolk agrees with the comments provided by the Hampton Roads Planning District Commission, of which Suffolk is a member, and reiterates the points raised by the commission:

- The EPA has failed to provide the localities with a reasonable opportunity to review, evaluate, and comment on the basis for the proposed allocations.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

Comment ID 0227.1.001.013

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

These decisions also reflect an exemplary decree of consultation with the states through what is now called the Water Quality Goal Implementation Team, using input from the Chesapeake Bay Program's expert work groups.

Response

Through the Water Quality Goal Implementation and other Chesapeake Bay Program committees, regular meetings and other forums and means, EPA and the states have worked together on the TMDL. Since September 2005, the seven jurisdictions have been actively involved in decision-making to develop the TMDL. Section 1.3 of the Draft Bay TMDL provides additional information on the joint work of EPA, the watershed states and the District of Columbia.

Comment ID 0256.1.001.009

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

In the recent round of public meetings on the Bay TMDL, local government officials have stressed that, while funding for restoration projects is critical, it is no more important than building broad general public support for the initiatives

required by the TMDL.

Response

EPA appreciates the perspectives of local government in the TMDL process. The agency has worked closely with the Local Government Advisory Committee and has met on many occasions with local officials regarding the TMDL. That interaction will be even more important in 2011 as the next phase of the Watershed Implementation Plans focuses on a more local level. The President's proposed budget for FY 2011 includes nearly a half billion dollars in funding for Chesapeake Bay restoration. EPA has stated that it will not be easy or inexpensive to restore the Bay and improve local waters in the process, but that it is our legal responsibility and our obligation to the citizens of the watershed.

Comment ID 0256.1.001.012

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

Secondly, EPA must take a stronger role in developing messages that local governments can use in explaining the need for TMDL compliance at the local level. Earlier this year in a letter to EPA Administrator, Lisa Jackson, in support of Senator Cardin's bill to reauthorize the Bay Program, LGAC requested that there be a strong communications and educational effort to explain to all citizens why and how this effort is critical to cleaning up the Chesapeake Bay. For those local officials facing their constituents, this is a vital component to communicating the message of Bay cleanup and restoration. LGAC will work with EPA to take a proactive role in helping to develop messages and educational efforts that will resonate at local government levels throughout the Watershed. We also recommend that the lessons learned from all the Pilot Projects be collected and made a part of whatever communication and outreach tools that are developed.

Some of our long standing LGAC members also wish to point out that the Chesapeake Bay Watershed Blue Ribbon Finance Panel called for a strong education and outreach component in their original report in 2004. This is one very important aspect of cleaning up and restoring the Chesapeake Bay, true then and true today, that neither EPA nor any of the Bay Partners can afford to ignore. We will succeed only if there is a full understanding of the stakes involved in our efforts.

Response

EPA fully agrees that education and communications to citizens about the importance of the Chesapeake Bay TMDL is essential. EPA will continue to build on its efforts to inform the public of the extensive benefits associated with cleaning up the Chesapeake Bay and the local rivers, streams and creeks that feed it. EPA looks forward to working in concert with LGAC to help develop new educational information for local governments, including a lessons learned document from the local pilot projects.

Comment ID 0265.1.001.019

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

B. The opportunity for comment is limited further by EPA's failure to provide all the information and tools needed to review and evaluate the TMDL.

Despite the massive size of the docket, EPA has not provided the public with all of the information and tools needed to effectively review, evaluate and comment on the basis for the proposed allocations. This is also inconsistent with EPA's Public Involvement Policy, which provides that "the comment period should not open until materials are available for the public to obtain and review".[FN 9] The Localities have tried to overcome this impediment to their opportunity to comment, in part, by posing several written questions and requests for information to EPA in an effort to gain a better understanding of the basis for the urban runoff allocations, but EPA has been generally unresponsive to these questions and requests.

[FN 9] Id.

Response

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

The public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA is unaware of the specific set of written questions and requests for information referred to in the comment. EPA assigned an EPA Watershed Implementation Plan coordinator to work with each jurisdiction and all requests for information, data, scenarios and other items were coordinated through that WIP coordinator to ensure each request for information or assistance was addressed. Priority was given during development of Phase 1 WIPs to requests directly from the states and the District, but EPA did respond to many requests from localities and many other stakeholders at the same time.

Comment ID 0300.1.001.009

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

From VDOT's experience, tangible water quality benefits result from educating the public and VDOT's own staff about pollution reduction in stormwater discharges and identifying and preventing illicit stormwater discharges to the storm sewer system. Therefore, VDOT requests that the TMDL emphasize the positive benefit of public education and outreach and provide recognition of load reductions that can be achieved through an effective public education program.

Response

EPA fully agrees that an effective public education program on identifying and preventing illicit stormwater discharges to the storm sewer system would be highly beneficial. EPA will build on its efforts to get the message out about how the public can do its part in reducing pollution loads to the Bay and local waters.

Comment ID 0306-cp.001.001

Author Name: Josenhans S.

Organization:

Your system timed out on me twice, erasing both offerings to the public record. I found I would have to scroll up in order to see the little pop-up. Allowing that I have 1500 Characters remaining, why would you have it set up to boot me out? This another means to squelch commentary for the public record and truly in keeping with that which I had twice attempted to submit. (TYPING REALLY FAST NOW!) I wonder how many others were again refused to be heard. In a nut shell & minus the politeness which was to be found in previous attempts: Terrible forum, Gum Chewing/Smackin by EPA was big hit, u OF r MOMOPOLIZED THE PODIUM.

Response

Please be assured that EPA has welcomed and encouraged all comments on the Bay TMDL, and facilitated the means for broad public participation.

EPA held 18 public meetings throughout the watershed during the public comment period and held numerous meetings with stakeholder groups while on the road.

Each of the public meetings, including the one held at the University of Richmond, featured a substantial question and answer and comment period, normally at least half of the meeting time.

Comment ID 0331.1.001.002

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

The EPA has failed to provide the City, as well as the public, with sufficient data and documentation to properly review, evaluate, and fully comment on the proposed allocations.

Response

EPA provided sufficient data and documentation for review and comment on the proposed allocations.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

As soon as model scenario input decks and outputs, documentation, and other related information were available, EPA made it available first to its jurisdictional partners and then to the public. As documentation on the suite of Bay models and the Scenario Builder was written and reviewed, EPA posted drafts and then final versions of that documentation. In many cases, EPA, working with its partners, was making decisions throughout the Bay TMDL development process that directly affected the formulation of model scenarios or was required prior to finalizing documentation. EPA took all possible steps to share data, information, and documentation in real time as it was being generated, reviewed and accepted.

EPA also took steps to ensure the underlying model code for the key modeling tools was available to its partners and the public, as part of a larger effort to make the models themselves, in addition to the input decks and the scenario outputs, as transparent as possible.

Comment ID 0340.1.001.005

Author Name: Miner Steven

Organization: Accomack County, Virginia

Having directly left counties out altogether, the TMDL regulatory process has not provided the States with enough time to include us in any reasonable manner. One could conclude that the Federal government is at this time the author of a huge catastrophe about to happen. Goals may be adopted, and forced on the states, which will in turn, end up requiring us to implement them - without financial support. Our citizens may be forced to pay to implement restrictions which could ultimately cost them their jobs. This is not right.

The draft state plans have had little or no distribution to localities, robbing the Commonwealth and its local partners of the opportunity to work together on possible solutions or interactions on the response to the Federal mandates. We object to this lack of time to work with the Commonwealth, with which Virginia local governments have long had a partnership arrangement on matters pertaining to our environment.

Response

With regard to public comment period, please see response to comment 0060.1.001.001. EPA held separate stakeholder meetings with local government representatives in each of the watershed states, including Virginia, during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA's draft TMDL and the draft state Watershed Implementation Plan were discussed during EPA's five public meetings in Virginia - the most of any state - in the fall of 2010. EPA also had other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. EPA sponsored a series of local pilot projects to help bring local perspective to state implementation plans. Virginia had two of those seven pilot projects. Virginia established a Stakeholder Advisory Group (SAG) to gather input for its implementation plan and held a public comment period on its draft plan. EPA participated in meetings of the SAG. EPA has also worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL.

Comment ID 0340.1.001.010

Author Name: Miner Steven

Organization: Accomack County, Virginia

Please consider:

3. Inviting local solutions and best practices, sharing these among the farmers and others who will have to meet final standards,

Response

EPA will continue to work with the U.S. Department of Agriculture, the respective watershed states, and the conservation districts to provide information to farmers and others on local solutions and best practices.

Comment ID 0340.1.001.011

Author Name: Miner Steven

Organization: Accomack County, Virginia

Please consider:

4. Inclusion of local government in a major way as the ultimate implementers of Federal intent,

Response

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people.

Comment ID 0340.1.001.012

Author Name: Miner Steven

Organization: Accomack County, Virginia

Please consider:

Education of citizens before, not after, implementation of regulations, when litigation and loss of economic viability is the likely result of an ill-thought out and introduced plan.

Response

EPA has conducted an extensive outreach program on the Bay TMDL over the past two years, including public meetings, a robust web site, monthly webinars and other opportunities to explain and receive input on the TMDL.

In its extensive outreach efforts, EPA has sought to emphasize the significant public, health, economic, recreational, cultural and quality of life benefits of the Bay TMDL. EPA has made a particular point in its materials to highlight the benefits to local waters and economies as well as those of the Chesapeake Bay.

Comment ID 0374-cp.001.001

Author Name: Hartgrove Charles

Organization: Town of Ashland, Virginia

Our most significant concerns with EPA's Draft TMDL and Virginia's WIP relate to lack of transparency in regulatory process particularly lack of disclosure and analysis of costs related to urban stormwater.

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

With regard to cost analysis, please refer to the response to comment 0139.1.001.017.

Comment ID 0374.1.001.002

Author Name: Hartgrove Charles

Organization: Town of Ashland, Virginia

Our most significant concerns with EPA's Draft TMDL and Virginia's WIP relate to the lack of transparency in this regulatory process, particularly regarding lack of disclosure and analysis of costs related to urban stormwater.

Response

Please see response to comment 0374-cp.001.001.

Comment ID 0377-cp.001.002

Author Name: Martin Larry

Organization: Sustainable Community Initiatives

Translating these ecological assessment endpoints into ecosystem services would be valuable for refining objectives and for communication to the public and political decision makers. The TMDL water quality standards are linked primarily to the health of keystone species in the Bay. Those species are important for the Bay's fishery and recreation, as well as other services (or benefits) provided by Bay-related ecosystems. Highlighting these services will enhance community understanding and support for the TMDL objectives.

Response

EPA agrees that highlighting the services provided by Bay-related ecosystems would be beneficial. EPA will build on its efforts in this area.

Comment ID 0378.1.001.002

Author Name: Warner Floyd

Organization: PA Chamber of Business and Industry

Given the enormous efforts and investments that are needed to achieve nutrient and sediment reductions, public support is essential. Such public support will never be forthcoming for proposed allocations that are arbitrary, outlandishly expensive and unaffordable, or which ignore constitutional structures and the limitations of governing bodies.

Response

The allocations were not arbitrarily determined, but were the product of the advanced watershed science of the Chesapeake Bay Program and its state and academic partners, and decisions by the state-federal partnership.

The states and the District of Columbia were given the opportunity to determine the practices and strategies and the sector responsibilities necessary to meet the allocations. For information on cost analysis, please see response to comment 0139.1.001.017. The allocations do not ignore constitutional structures.

Comment ID 0407.1.001.005

Author Name: Krouskop Dirk

Organization: MeadWestvaco Corporation (MWV)

MWV also questions whether or not EPA has complied with Administrative Procedure Act requirements regarding the development of the draft TMDL. EPA has not provided a reasonable opportunity to comment on the draft TMDL. EPA has used vast amounts of information that is not available to the public and the time requirements imposed on the states for WIP development and scenario comparisons has been far too short for a process of this magnitude.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001.

Although the Bay TMDL is a detailed document, the public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

For several months, EPA worked closely with the states and the District of Columbia to strengthen the draft Watershed Implementation Plans submitted to EPA in early September. EPA had numerous constructive meetings and conference calls with each of the jurisdictions and reviewed preliminary WIP submissions. EPA also worked with jurisdictions after the submittal of final WIPs to minimize or eliminate the possibility of federal backstop measures. The Watershed Implementation Plans are not part of the Bay TMDL. The review processes for the WIPs were determined by the individual states and the District of Columbia.

Comment ID 0414.1.001.002

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Based on the following comments and questions, the Authority believes that it is not appropriate to implement the draft TMDL without considerably more public participation and information sharing.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0419.1.001.013

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

The Communities further agree with VAMWA, VAMSA, and HRPDC that the opportunity for comment is limited further by EPA's failure to provide all of the information and tools needed to review and evaluate the TMDL. Particularly significant is EPA's failure to make critical components of its TMDL decision support system (such as the Scenario Builder software, the Phase 5.3 Modeling Report, and reliable Phase 5.3 Model source codes and data) available to the modeling community outside of EPA. As HRPDC notes in its comments, without access to these components, modelers retained by stakeholders must blindly accept model inputs from EPA and must rely upon EPA to stitch together various patches and workarounds to get the Model to run. This has the effect of making an already inadequate 45-day comment period even shorter as modelers outside of EPA are forced to wait for EPA to run the Model and produce the results, leaving them without adequate time to evaluate and understand the data. Under these circumstances, there is little that the modeling community can do to apply the Phase 5.3 Model in any independent or meaningful manner within the very limited period of time provided by the comment period.

Response

With regard to the public comment period, please see response to 0060.1.001.001.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars, and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

With regard to modeling information, as soon as model scenario input decks and outputs, documentation, and other related

information were available, EPA made it available first to its jurisdictional partners and then to the public. As documentation on the suite of Bay models and the Scenario Builder was written and reviewed, EPA posted drafts and then final versions of that documentation. In many cases, EPA, working with its partners, was making decisions throughout the Bay TMDL development process that directly affected the formulation of model scenarios or was required prior to finalizing documentation. EPA took all possible steps to share data, information, and documentation in real time as it was being generated, reviewed and accepted.

EPA also took steps to ensure the underlying model code for the key modeling tools was available to its partners and the public, as part of a larger effort to make the models themselves, in addition to the input decks and the scenario outputs, as transparent as possible.

EPA made the Scenario Builder documentation available on 9/16/2010, the Scenario Builder code available on 10/29/2010, and the support database during the period 11/1-11/5/2010. The documentation, code, and database have been publically available at <ftp://ftp.chesapeakebay.net/Modeling/ScenarioBuilder/>. The scenario builder inputs and outputs have been publically available at ftp://ftp.chesapeakebay.net/Modeling/phase5/Phase53_Loads-Acres-BMPs/. As new management scenarios were developed using Scenario Builder and run as input decks through the Phase 5.3 Chesapeake Bay Watershed Model, those new results were made publically accessible through the same FTP site. The Phase 5.3 Chesapeake Bay Watershed Model, used in the development of the Bay TMDL, has been available at <http://ches.communitymodeling.org/models/CBPhase5/index.php>

The technical direction on development and review of the Scenario Builder has been accomplished through collaborative meetings and conference call of several groups within the Chesapeake Bay Program partnership's organizational structure. Prominent among these are the Water Quality Goal Implementation Team, the Modeling Workgroup, the Agricultural Nutrient and Sediment Reduction Workgroup (NRCS and University of Maryland representatives are co-chairs), the Urban Stormwater Workgroup, the Forestry Workgroup, and the Wastewater Workgroup. All of these meetings were open to the public. Each has broad representation from state and federal government, academics, and stakeholder groups. Links to records of these meetings and conference calls are be found in Appendix C of the final Bay TMDL. These links provide direct access to the briefing materials prepared in advance of the meeting/conference call, the presentations given during the meeting/conference call, and the summary of decisions/actions coming out of the meeting/conference call.

After more than five years of development work, calibration and validation were completed in March 2010 and reviewed and approved by several of the above groups. All the Phase 5.3 Watershed Model calibration results are accessible at ftp://ftp.chesapeakebay.net/Modeling/phase5/Phase%205.3%20Calibration/Calibration_pdf/all_validation.pdf.

The Chesapeake Community Modeling Program, an organization supported by and staffed by academic institutions across the Chesapeake Bay watershed, hosts the open-source code of the Chesapeake Bay Phase 5.3 Watershed Model on its website. This model code has been accessed by and is being used by numerous academic institutions, states and others in supporting local, regional and state-wide decision making. The Phase 5.3 Watershed Model's code can be accessed at the Chesapeake Community Modeling Program's website at <http://ches.communitymodeling.org/models/CBPhase5/datalibrary.php>.

For more detailed documentation, please access the Phase 5.3 Chesapeake Bay Watershed Model report at http://www.chesapeakebay.net/model_phase5.aspx?menuitem=26169.

Comment ID 0429-cp.001.007

Author Name: Reeves J.

Organization:

US EPA & its senior staff on this initiative:

8- should continue efforts toward pollution prevention and "no-discharge" in continuation to key ideas and thrust of PL 92-500 and its updates since 1972 passage.

9- should summarize the personal observations of Bay residents who have witnessed the degradation of this National Treasure. I grew up (> 10 yo) in Mathews County, Va. from 1958 and have seen/ witnessed many deteriorations and disasters on the Va. portion of this watershed. Those key Ches. Bay goals of 1983- as updated- are way past due date!

Response

Personal observations are important in chronicling the status of the Chesapeake Bay.

EPA agrees that meeting the goals or restoring the Chesapeake Bay are overdue,

The TMDL is designed to have all practices in place by 2025 to restore the Bay, paced by two-year milestones of progress.

Comment ID 0434.1.001.001

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

The VA Farm Bureau has been a willing participant and partner in the Bay restoration efforts. Given the long history of the program and progress made to date, we are concerned that EPA is now trying to change the process without adequate opportunity for the public -- particularly those impacted by EPA's proposal -- to review, comment and understand the scope, nature, need and rationale for EPA's action. EPA has only allowed a 45 day comment period on the draft TMDL, which would materially disrupt Virginia's approach to water quality restoration with costly and unnecessary consequences for the agricultural community.

Response

With regard to the public comment period, please see response to comment 0060.1.001.001,

EPA recognizes the impact of the Bay TMDL on agriculture and, along with the watershed states, has done extensive and targeted outreach to the agricultural community over the past several years to explain developments with the TMDL and address questions.

The public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed

through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings, in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Comment ID 0436.1.001.019

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

B. The opportunity for comment is limited further by EPA's failure to provide all the information and tools needed to review and evaluate the TMDL.

Despite the massive size of the docket, EPA has not provided the public with all of the information and tools needed to effectively review, evaluate and comment on the basis for the proposed allocations. This is also inconsistent with EPA's Public Involvement Policy, which provides that "the comment period should not open until materials are available for the public to obtain and review". [FN 9] The Localities have tried to overcome this impediment to their opportunity to comment, in part, by posing several written questions and requests for information to EPA in an effort to gain a better understanding of the basis for the urban runoff allocations, but EPA has been generally unresponsive to these questions and requests.

[FN 9] See Public Involvement Policy of the U.S. Environmental Protection Agency (EPA 233-B-03-002 - May 2003) at page 13.

Response

Please see response to comment 0265.1.001.019.

Comment ID 0438.1.001.005

Author Name: Johnson Roger

Organization: National Farmers Union (NFU)

Finally, I am concerned that adequate public input was not provided in development of this tool. I strongly urge EPA to consider delay in implementing TMDL regulations until the public can adequately review all data inputs and assumptions. Until EPA can provide assurance that water quality data and assumptions are defensible, regulatory efforts in the Chesapeake Bay will likely be undermined by claims that the Agency has acted in a manner that is arbitrary and capricious. This problem can be corrected with the benefit of adequate public review.

Response

With regard to the public comment period, please see response to comment 0060.1.001.

With regard to the availability of modeling information, please see response to comment 0419.1.001.013.

With regard to the complexity of the Bay TMDL and the need for adequate public review, please see response to comment 0153.001.003.

Finally, EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0442.1.001.017

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

15. EPA & States Should Enhance Dialogue with Local Governments and Other Stakeholders.

Local governments and utilities were rarely consulted during development of the TMDL or state WIP documents and have little time in which to comment. As the process moves into Phase II WIP development, both federal and state officials need to do more to hear from local governments and utilities that will bear much of the burden of these implementation measures. Ultimately, all levels of government must work together to justify these efforts and the financial demands on ratepayers and the general public.

Recommendation #15: Issue Process for Phase II WIP Development, with Enhanced Stakeholder Participation
Maryland and Virginia should issue a detailed process for the development of Phase II WIPs as soon as possible and well before the publication of the final TMDL documentation. And EPA should make it clear that local input must be addressed to ensure that the issues of reasonable assurance and feasibility have been worked out with those entities

actually responsible for implementation, and allow sufficient time for that input to occur (ref. Section 11. Public Participation).

Response

EPA has had extensive interactions with local government representatives during the development of the Bay TMDL,

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee and has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

The Watershed Implementation Plans are not part of the TMDL. The WIPs, both draft and final, were developed by the states and the District of Columbia and the development and review process for those documents was determined by the individual jurisdictions. The same is true for the Phase II WIPs.

However, as with the draft and final Phase I WIPs, EPA will be working closely with the states and local governments as the jurisdictions develop their plans, providing a variety of forms of assistance.

Comment ID 0463.1.001.014

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

Localities had very limited input in drafting the Draft TMDL or WIP. We appreciate EPA's efforts to be inclusive in the decision making, especially given the abbreviated timeline. Unfortunately, the lack of input by localities during this phase excludes local expertise from contributing to the final document.

Response

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more

extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the states and the District offer allocations of pollution reduction responsibilities on the local scale, such as county, conservation district or small watershed.

With regard to the Watershed Implementation Plans, they are not part of the TMDL and the states determined their respective processes for development and review of those documents.

Comment ID 0467.1.001.001

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

The Authority supports the clean up of the Chesapeake Bay and all impaired waters. However, based on the following comments and questions, the Authority believes that it is not appropriate to implement the draft TMDL without more adequate public participation and information sharing.

Response

Please see response to comment 0060.1.001.001.

Comment ID 0467.1.001.023

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

XI. Environmental Justice

A. In a recent federal register notice regarding EPA's national stormwater program and stakeholder input on stormwater rulemaking related to the Chesapeake Bay, EPA indicated that it will address environmental justice consideration as part of the process. EPA should have sought public input and addressed environmental justice considerations as part of the draft TMDL process.

Response

The implementation of the Bay TMDL and the achievement of water quality standards will benefit all areas, including environmental justice communities. Environmental justice is a priority of EPA.

EPA notes that the Chesapeake Bay TMDL is not a federal regulation.

Comment ID 0496.1.001.016

Author Name: Allsbrook Lynn

Organization: City of Hampton, Virginia, Department of Public Works

B. The opportunity for comment is limited further by EPA's failure to provide all the information and tools needed to review and evaluate the TMDL.

Despite the massive size of the docket, EPA has not provided the public with all of the information and tools needed to effectively review, evaluate and comment on the basis for the proposed allocations. This is also inconsistent with EPA's Public Involvement Policy, which provides that "the comment period should not open until materials are available for the public to obtain and review". [FN9] The Localities have tried to overcome this impediment to their opportunity to comment, in part, by posing several written questions and requests for information to EPA in an effort to gain a better understanding of the basis for the urban runoff allocations, but EPA has been generally unresponsive to these questions and requests.

[FN 9] Id.

Response

Please see response to comment 0265.1.001.019.

Comment ID 0501.1.001.006

Author Name: Stainman S.

Organization:

9. As EPA goes forward with its TMDL requirements, it should point out the economic benefits to the states of a cleaner, healthier Chesapeake Bay that can be enjoyed by all.

10. EPA should work with US Dept. of Interior and state parks agencies to increase public access and exposure to the Chesapeake Bay to show the benefits to the public of this cleaner, richer natural resource.

Response

In its presentations at the public meetings this fall on the Draft Bay TMDL, EPA noted the significant economic benefits of cleaner local rivers, streams and the Chesapeake Bay. One of the features of the President's Executive Order on the Chesapeake Bay is a focus by the U.S. Department of the Interior on expanding public access to the Bay and its rivers from public lands.

Comment ID 0503.1.001.002

Author Name: Skillen James

Organization: RISE (Responsible Industry for a Sound Environment)

We believe that the Chesapeake Bay TMDL should have an educational component to address DIY lawn fertilization. Consumers should be encouraged to protect the Chesapeake Bay through a robust communications program based upon proven best management practices for lawn care.

Everyone within the Chesapeake Bay watershed wants to protect the bay and will take appropriate action with guidance from the EPA and the states. We look forward to joining other stakeholders to help create a plan for improving the bay.

Response

EPA agrees that education is important in helping the public do its part to protect the Chesapeake Bay and local waters. Lawn fertilization was the focus of a Chesapeake Bay Program-sponsored outreach campaign whose central message was "Save the Crabs, then Eat 'em." It encouraged lawn fertilization in the fall if at all and involved restaurants and lawn care companies. EPA will build on its current efforts to provide public education on the impact of lawn fertilization on nutrient pollution in the Chesapeake Bay.

Comment ID 0507.1.001.006

Author Name: Sullivan Sean

Organization: Liberty University and Thomas Road Baptist Church

As described in Section I of the National Association of Home Builders' ("NAHB") comments and Section ILA of the Federal Water Quality Coalition's ("FWQC") comments regarding the Draft TMDL,[FN37] EPA has not made much of the data and results of its Scenario Builder model available to the public for review[FN38] In addition, EPA has not published the specific model inputs and outputs used to develop the Draft TMDL.[FN39] Furthermore, EPA has not made the programming code for Scenario Builder available to the public.[FN40] Finally, EPA has admitted in public hearings and its website that the agency has not yet finalized the Scenario Builder model.[FN41] EPA's lack of transparency regarding this fundamental element of the Draft TMDL is contrary to the D.C. Circuit's statement in *Sierra Club v. Castle*:

The safety valves in the use of such sophisticated methodology are the requirement of public exposure of the assumptions and data incorporated into the analysis and the acceptance and consideration of public comment, the admission of uncertainties where they exist, and the insistence that ultimate responsibility for the policy decision remains with the agency rather than the computer [FN42]

The court also explained that:

[T]he agency must sufficiently explain the assumptions and methodology used in preparing the model; it must provide a "complete analytic defense of its model (and) respond to each objection with a reasoned presentation." The technical complexity of the analysis does not relieve the agency of the burden to consider all relevant factors and to identify the stepping stones to its final decision. There must be a rational connection between the factual inputs, modeling assumptions, modeling results and conclusions drawn from these results.[FN43]

Because of the lack of information available for the modeling that underlies the Draft TMDL, it does not appear that EPA can satisfy its burdens regarding providing the public with an opportunity to comment on the Draft TMDL.

[FN37] Liberty hereby incorporates the comments of NAHB and the FWQC regarding the Draft TMDL by reference to the extent those comments are not inconsistent with Liberty's.

[FN38] See NAHB Comments at 3-7; FWQC Comments at 14-16. 39Id

[FN39] Id.

[FN40] Id.

[FN41] Id.

[FN42] 657 F.2d 298, 332-33 (D.C. Cir. 1981).

[FN43] Id.

Response

As soon as model scenario input decks and outputs, documentation, and other related information were available, EPA made it available first to its jurisdictional partners and then to the public. As documentation on the suite of Bay models and the Scenario Builder was written and reviewed, EPA posted drafts and then final versions of that documentation. In many cases, EPA, working with its partners, was making decisions throughout the Bay TMDL development process that directly affected the formulation of model scenarios or was required prior to finalizing documentation. EPA took all possible steps to share data, information, and documentation in real time as it was being generated, reviewed and accepted.

EPA also took steps to ensure the underlying model code for the key modeling tools was available to its partners and the public, as part of a larger effort to make the models themselves, in addition to the input decks and the scenario outputs, as transparent as possible.

EPA made the Scenario Builder documentation available on 9/16/2010, the Scenario Builder code available on 10/29/2010, and the support database during the period 11/1-11/5/2010. The documentation, code, and database have been publically available at <ftp://ftp.chesapeakebay.net/Modeling/ScenarioBuilder/>. The scenario builder inputs and outputs have been publically available at ftp://ftp.chesapeakebay.net/Modeling/phase5/Phase53_Loads-Acres-BMPs/. As new management scenarios were developed using

Scenario Builder and run as input decks through the Phase 5.3 Chesapeake Bay Watershed Model, those new results were made publically accessible through the same FTP site. The Phase 5.3 Chesapeake Bay Watershed Model, used in the development of the Bay TMDL, has been available at <http://ches.communitymodeling.org/models/CBPhase5/index.php>

The technical direction on development and review of the Scenario Builder has been accomplished through collaborative meetings and conference call of several groups within the Chesapeake Bay Program partnership's organizational structure. Prominent among these are the Water Quality Goal Implementation Team, the Modeling Workgroup, the Agricultural Nutrient and Sediment Reduction Workgroup (NRCS and University of Maryland representatives are co-chairs), the Urban Stormwater Workgroup, the Forestry Workgroup, and the Wastewater Workgroup. All of these meetings were open to the public. Each has broad representation from state and federal government, academics, and stakeholder groups. Links to records of these meetings and conference calls are be found in Appendix C of the final Bay TMDL. These links provide direct access to the briefing materials prepared in advance of the meeting/conference call, the presentations given during the meeting/conference call, and the summary of decisions/actions coming out of the meeting/conference call.

After more than five years of development work, calibration and validation were completed in March 2010 and reviewed and approved by several of the above groups. All the Phase 5.3 Watershed Model calibration results are accessible at ftp://ftp.chesapeakebay.net/Modeling/phase5/Phase%205.3%20Calibration/Calibration_pdf/all_validation.pdf.

The Chesapeake Community Modeling Program, an organization supported by and staffed by academic institutions across the Chesapeake Bay watershed, hosts the open-source code of the Chesapeake Bay Phase 5.3 Watershed Model on its website. This model code has been accessed by and is being used by numerous academic institutions, states and others in supporting local, regional and state-wide decision making. The Phase 5.3 Watershed Model's code can be accessed at the Chesapeake Community Modeling Program's website at <http://ches.communitymodeling.org/models/CBPhase5/datalibrary.php>.

For more detailed documentation, please access the Phase 5.3 Chesapeake Bay Watershed Model report at http://www.chesapeakebay.net/model_phase5.aspx?menuitem=26169.

Comment ID 0515.1.001.028

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

H. Have the TMDL provide that the EPA must convene and facilitate mandatory cross-jurisdictional meetings (for example, between New York and Pennsylvania; Pennsylvania and Maryland and Delaware; and West Virginia and Virginia) including corresponding elected federal, state, and local officials to promote common understanding, exchange information, identify and address concerns, as well as ensure all are "on the same page" and working harmoniously together with unified purpose toward TMDL implementation and Bay restoration, to share and learn from "best practices" and "success stories", and in order to minimize counterproductive cross-border actions or initiatives.

Response

EPA appreciates the recommendation of cross-jurisdictional meetings. In fact, EPA has promoted interaction between the various partners involved in Bay TMDL implementation on issues of best practices, success stories and common concerns, primarily through the committee structure of the Chesapeake Bay Program and other avenues. It is in the best interests of all involved to share information and benefit from one another's experiences. For example, EPA sponsored local pilot projects - and shared information from those initiatives - to help states receive input from local officials in the development of their Watershed Implementation Plans.

Comment ID 0528.1.001.002

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

Moreover, the EPA has failed to provide the public with sufficient data and documentation needed to review, evaluate, and fully comment on the proposed allocations.

Response

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls with partners and stakeholders, on regular webinars, and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

With regard to the availability of model information and documentation, please see response to comment 0419.1.001.013.

Comment ID 0548.1.001.001

Author Name: Smith Brooks

Organization: Utility Water Act Group

Some of the comments provided here were previously advanced in connection with EPA's Strategy for Protecting and Restoring the Chesapeake Bay, which was released on November 9, 2009, and finalized on May 12, 2010 ("Bay Strategy").[FN 2] UWAG elected to revive its earlier comments where EPA either failed to respond or failed to meaningfully address UWAG's concerns. UWAG believes that the response to comment process is a fundamental "minimum" in agency decisionmaking, and UWAG urges EPA to provide individualized responses to UWAG's comments before finalizing the Bay TMDL.

[FN 2] This Strategy was prepared pursuant to Section 203 of Executive Order 13508, dated May 12, 2009, and was accompanied by a series of reports, including EPA's so-called Section 202(a) report entitled, Report on the Next

Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay. According to EPA, the "Bay TMDL is a keystone commitment in the strategy developed by the federal agencies to meet the President's Executive Order." Bay TMDL at iii.

Response

Individual responses are being provided for comments on the draft Chesapeake Bay TMDL, even if the response is referencing a response to a similar or identical question.

The Bay TMDL is indeed a keystone commitment in the strategy developed by the federal agencies to meet the President's Executive Order.

Comment ID 0568.1.001.004

Author Name: Eisel James

Organization: Delaware County, New York

This seems to indicate that there has not been sufficient outreach to regional and local stakeholders to understand conditions at a finer scale.

Response

EPA has worked closely with the Chesapeake Bay Program's Local Government Advisory Committee in the development of the Bay TMDL. In addition, EPA has held separate stakeholder meetings with local government representatives in each of the watershed states during public meeting tours on the Bay TMDL in the fall of 2009 and in the fall of 2010. EPA has also had many other interactions with local government representatives during the development of the Bay TMDL, recognizing the importance of input from those on the local level closest to the people. A full list of the hundreds of meetings EPA has held on the TMDL over the past three years, including those with local governments, is available as an appendix to this report. EPA looks forward to more extensive discussions with local officials in 2011 as the Phase II Watershed Implementation Plans from the jurisdictions offer allocations of pollution reduction responsibilities on a finer geographic scale, such as counties, conservation districts and sub-watersheds.

Comment ID 0587.1.001.001

Author Name: Watts George

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

The comments below also reiterate some of the issues and concerns that we conveyed to EPA in our December 18, 2009 comments on the Notice and Initial Request for Public Input on the Preliminary Notice of the TMDL for the

Chesapeake Bay, our comments on the Draft Strategy (January 8, 2010), and comments and issues discussed at the face-to-face meeting the US Poultry and Egg Association held with EPA on March 22, 2010.

Response

Thank you for your comments.

Comment ID 0591.1.001.001

Author Name: Shields M.

Organization:

This plan is largely an EPA self-justification document. To maintain that it is science based is laudable, but hardly true. So is the idea that the "draft Chesapeake Bay TMDL was developed through a highly transparent and engaging process" as this is, in my humble opinion, not true.

Response

Advanced, peer-reviewed watershed science has been used in the development of the Bay TMDL.

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Comment ID 0591.1.001.005

Author Name: Shields M.

Organization:

EPA's claim to have a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community may be true, but my guess is that these are self serving people, with their own private agendas and not really looking at all the issues.

Response

EPA and the other partners in the Chesapeake Bay Program greatly value the contributions of the Bay Program's committees and their dedicated volunteer members, whose expertise and perspectives assist the decision-making bodies of the Bay Program.

The three major committees include the Scientific and Technical Advisory Committee (STAC), the Citizens Advisory Committee (CAC) and the Local Government Advisory Committee (LGAC) – each providing key perspectives to further the work of the Chesapeake Bay Program.

STAC provides scientific and technical advice in various ways, including (1) technical reports and papers, (2) discussion groups, (3) assistance in organizing merit reviews of CBP programs and projects, (4) technical conferences and workshops, and (5) service by STAC members on CBP subcommittees and workgroups.

Members of CAC communicate with their constituencies to increase understanding of programs to restore and protect the Bay. The membership is broad-based with representatives from agriculture, business, conservation, industry, and civic groups. Since 1984, this group has provided a non-governmental perspective on the Bay cleanup effort and on how Bay Program policies affect citizens who live and work in the Chesapeake Bay watershed.

LGAC is a body of officials appointed by the Governors of Maryland, Pennsylvania, Virginia, and the Mayor of the District of Columbia to improve the role local governments play in Bay restoration efforts and develop strategies to broaden local government participation in the Chesapeake Bay Program. Since its creation in 1988 LGAC has actively supported local government participation in the Chesapeake Bay Program. Quarterly meetings of LGAC provide the forum for policy development and periodic adjustment to programming functions and organizational direction. Improving communication, supplying technical assistance to local governments, and providing a local government perspective on policy development within the greater Chesapeake Bay Program are the chief means by which LGAC works to enhance the participation of local governments in the Bay restoration effort.

Comment ID 0656.001.004

Author Name: Dietrich Fredric

Organization: Town of Danby and Tompkins County, New York

However, we are concerned that the TMDL allocations as applied to New York are impractical, unrealistic, and unnecessary. The draft TMDL, with its top-down imposition of nutrient loads and lack of attention to key pollutant sources in rural areas, does not reflect the spirit of cooperation with stakeholder groups that has been emphasized by

the EPA and was central to the collaboration agreed to by EPA and the other Watershed Partners in creating a plan to restore the Bay.

Response

With regard to the New York allocations, please see response to comment 0080-cp.001.002.

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all six states and the District of Columbia in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all six states and the District of Columbia. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Comment ID 0728.001.005

Author Name: Proto Frank

Organization: Tompkins County Water Resources Council

it is crucial that EPA work collaboratively with State agriculture and environmental protection agencies, Soil and Water Conservation Districts, and local communities to address Bay watershed water quality concerns,

Response

EPA agrees it is crucial that it work collaboratively with the organizations identified in the comment. EPA has had extensive outreach and collaborative discussions with these agencies, districts and communities and will continue to do so as the process moves forward. A full list of EPA meetings with stakeholder groups, including the ones listed in the comment, is available as an appendix to the Bay TMDL.

Comment ID 0740.001.002

Author Name: Hanmer R.

Organization:

Some stakeholder organizations claim to be surprised or ill-informed about the basis for the TMDL. If that is the case, it is not the fault of EPA or the Chesapeake Bay Program. The basic information is well known, and the proposed nutrient allocations are quite similar to those which were issued by the Bay Program's Principals' Staff Committee in 2003. EPA and the states have made extraordinary efforts, since 2000, to seek public participation and action through all the processes which have finally led to the draft TMDL. Public documents have described the analytical processes and policy development in detail. The upgrading and use of the Bay Program models have been transparent processes.

Response

EPA agrees that extraordinary efforts have been made by EPA and the states to seek public participation and action through all the processes which have finally led to the TMDL.

Comment ID 0740.001.008

Author Name: Hanmer R.

Organization:

As Region III Water Protection Division Director and especially as head of the Chesapeake Bay Program Office, I led EPA's basic scientific and management processes that laid the foundation for EPA's development of the suite of TMDLs (Total Maximum Daily Loads) called the 'Chesapeake Bay TMDL', proposed in September 2010. These foundational processes included completing the recruitment of the Chesapeake Bay headwater states to participate in all of the Bay Program's water quality-related initiatives (2002) ; development and publication of Chesapeake Bay-specific water quality criteria for protecting aquatic life in the Bay and its tidal tributaries (2003), accompanied by EPA guidance for the states to use in designating water use zones for the same purpose, and for determining attainability of the uses and criteria, with state-of-the-art procedures for analyzing monitoring results and determining attainment; and production of "TMDL-like" load allocations for nitrogen, phosphorus and sediment, divided by major contributing river basin so that all seven basin states (six states and the District of Columbia) could prepare and implement tributary strategies for reducing the full range of polluting nutrient and sediment sources (2003).

These efforts supported revision of tidal water quality standards in Maryland, Virginia, Delaware and the District of Columbia (2004-5), approved by EPA. A basinwide, consistent federal-state network for nutrient water quality monitoring was established (2004), and an interstate strategy for Clean Water Act nutrient permitting of wastewater treatment discharges basinwide was developed by EPA and the partner states (2004).

Thus, development of the Chesapeake Bay TMDL has been based upon a long series of successive, supportive steps linking actions by the cooperative federal-state Chesapeake Bay Program and the EPA and state water quality regulatory programs. EPA's Clean Air Act program has also been involved. These steps were not carried out exclusively by EPA but rather by an active coalition of cooperating federal agencies and all states in the Chesapeake Bay basin,

with active public participation by representatives of wastewater treatment agencies, environmental groups, agricultural interests (mostly through state agriculture agencies) and local officials involved in urban stormwater programs.

Response

EPA appreciates the extensive and successive groundwork that has been laid to support this next step in the restoration process - the Chesapeake Bay TMDL. The comment also outlines the strong interaction between EPA, other federal agencies and the watershed jurisdictions in restoration efforts, as well as the active public participation process that began long before the TMDL was established.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

**Issue Category:
33. Miscellaneous Comments**

Pages 2891 – 2934

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

33 - MISCELLANEOUS COMMENTS

Comment ID 0089.1.001.002

Author Name: Hunter J. And M.

Organization:

--Virginia has put over \$80 million into Agricultural Best Management Practice (Ag BMP) Cost-Share program since 2006. Farmers have matched this spending with \$0.60 of every dollar, and are lined up at the door to do more.

Annually, willing participants are turned away due to lack of adequate funds at the state and federal level.

--Even without cost-share funding, agriculture is taking action. Virginia farmers fence cattle from streams, practice conservation tillage, use proper nutrient management practices, and install buffers along waterways- without federal or state funds- and without being "counted" by EPA.

--Without regulatory pressure, the turfgrass/green industry requested that the state create an Urban Nutrient Management Program so that their professionals can have plans specifically tailored for their businesses.

--Lawncare operators have supported and signed Voluntary Water Quality Agreements with the state. Major home lawn fertilizer companies have signed agreements to reduce and/or eliminate phosphorus from maintenance fertilizers by 2012.

--Virginia's golf industry is developing a Best Management Handbook covering water quality, pesticide use, and water supply issues for their industry to implement.

Response

In 1997, EPA conducted a year long evaluation to assess the progress that has been made toward reduction of nitrogen and phosphorus delivered to the Bay. The evaluation noted that wastewater discharges reduced their loads by 51% and implementation of nutrient best management practices from nonpoint sources loadings of nitrogen and phosphorus reduced loadings by 7 and 9 percent, respectively. EPA and the seven impacted jurisdictions again reevaluated the nutrient and sediment reductions in 2007. The reevaluation found that sufficient progress had not been made toward improving water quality in the Chesapeake Bay and its tidal tributaries and that nutrients and sediment remained a source of significant impairment for the Bay.

After decades of regulatory and management initiatives to address the nutrient and sediment discharges, the Bay remains impaired. As required by Section 303(d) of the CWA and its implementing regulations, EPA is establishing this TMDL to address the impaired Chesapeake Bay and its tributaries. Section 1.2 of the final TMDL document provides a detailed description of the many activities and actions that have preceded this TMDL.

While EPA recognizes, appreciates and encourages the many voluntary activities that organizations, industry, and other groups are employing to reduce their contributions of nutrients and sediment to the Bay, EPA believes that for the Bay to reach an unimpaired state, a more comprehensive plan with a clear target must be applied. This TMDL with its accountability framework lays the foundation for achieving water quality standards within the Bay.

Comment ID 0089.1.001.007

Author Name: Hunter J. And M.

Organization:

WV boasts over 20 years of successful implementation with voluntary programs being delivered in cooperation with a strong educational message. This is reflected with the success of the Potomac Headwaters Land Treatment Program (PL534) which was a partnership between federal, state and local governments resulting in over \$14 million in water quality improvements practices being placed on over 300 farms in the headwater West Virginia counties of Pendleton, Grant, Hardy, Hampshire and Mineral. Voluntary participation has resulted in the reduction of in-stream measured fecal bacteria and nitrates resulting in the de-listing of impaired streams under the Clean Water Act- Reference: Diamond of the East Potomac Headwaters- USDA NRCS

Response

Please refer to response to comment 0089.1.001.002.

Comment ID 0094-cp.001.001

Author Name: Holland L.

Organization: W.T. Holland & Son's, Inc.

WE use set backs, buffers, grass waterways. Received several clean water awards from both state & federal. Moved fuel tanks above ground, 1st in county to plant no-till corn (1970),changed all manure and fert. equipment to hydallic drive to control speed of spinners. Plant cover crops such as vetch that makes its own Nitrogen-less commercial fert. purchased and applied. Annual soil tests with field recommendations, we have as many as 20 perscriptions for our corn crop. I tell you all of this to show you the good stewards that we are without mandates.

Regulations have driven industry abroad, regulations will drive food production else where. Do you want your food to come from Mexico, Brazil, China,etc? I don't. The only thing we have to fight with is food, no industry, no fuel just food.

Response

EPA appreciates the commitment to environmental stewardship provided by this commenter. For a response to other comments, please refer to response to comment 0089.1.001.002.

Comment ID 0105-cp.001.002

Author Name: Yates Keith

Organization:

new, expensive, onerous regulations are unwelcome, and a thinly veiled attempt to block shale gas drilling in NY's Southern Tier, hurting farmers and taxpayers in general in the process.

Response

Please refer to response to comment 0190-cp.001.002.

Comment ID 0128.001.001

Author Name: Osman M.

Organization:

I need to know who I can get in touch with. As you know gas companies are drilling for natural gas wells in Penna. They are now using the fracking system. Can you please tell me how the farmers of our area in Bedford County are to blame for the pollution in the Chesapeake Bay but yet we as a state are allowing the big gas companies to pump millions of gallons of poisons in the earth. They need approx. 2 million gallons of water a day to drill. 1 percent of that is chemicals that are polluting the water. They told us that 90% of this water stays in the ground. where is this poison going to come out at? Here in our area wells or our streams. Or maybe it is making its way down to the chesapeake bay area. Please check into where this poison is heading, may this is something that the Bay should be checking into. Hurry and start a study so that our underground water shed is not destroyed.

Response

Please refer to response to comment 0190-cp.001.002.

Comment ID 0130.001.001

Author Name: Harrison T.

Organization:

Around here everybody knows no one is enforcing the law. After 5PM and on Saturdays and Sundays you can see Amish farmers and none Amish individuals burning trash, burning huge plastic barrels, dumping manure, NOT spreading it, ...they know when "office hours" are in effect. The EPA has recently come to the conclusion that 'something isn't right' in PA. That something is DEP-they are NOT using their mandate to enforce. And people here laugh about teh lack of control or worse - complain that they have to wait til 5 (or the weekend)to burn and dump. No one is enforcing these laws so people think that there must not be much to them. This is how they frame their comments about this.

Response

EPA has certain authorities and responsibilities to implement the Clean Water Act including oversight over states (such as Pennsylvania) that administer parts of the CWA such as the NPDES permit. Many states have strong water quality protection and enforcement programs, but state compliance and enforcement vigor is uneven. Without consistent enforcement by EPA and states, there exists an unlevel playing field for businesses that do comply with the law, and also for our citizens who are not provided equal protection under our environmental legal framework. States labor under different political and resource constraints; nonetheless, EPA must ensure that states provide a minimum level of water quality protection and consistently apply the law by issuing protective permits and by pursuing appropriate enforcement. EPA articulates where the minimum requirements for acceptable state NPDES and water quality programs in its regulations, and consistently hold states accountable. Where states are not meeting these expectations, EPA has authority to object to inadequate NPDES permits and by pursuing independent federal enforcement against violators. EPA notes Pennsylvania's renewed commitment to more vigorous enforcement in the agricultural sector as discussed in their Pennsylvania's Final Phase I WIP.

If a citizen believes that individuals/facilities are illegally discharging pollutants to waters of the United States, EPA encourages each citizen to report violations through the State's environmental hot lines. In addition, EPA has an environmental hotline that can be used anonymously to report violations at 1-800-438-2474 or www.epa.gov/tips.

Comment ID 0146.1.001.007

Author Name: Isenberg W.

Organization: Virginia Commonwealth University Center for Environmental Studies. Class: ENVS 601, Professor: P.L. deFur

Finally, with relation to some proofreading and clarity issues in the document, I'd first like to bring to attention that in Section 6.1.2 the document directs the reader to Appendix F for more detailed technical documentation on deciding critical conditions for chlorophyll a and water clarity/SAV. However in Appendix F (titled "Determination of the Hydrologic Period for Model Application") there is no mention of chlorophyll a or water clarity/SAV critical conditions. Instead, the only mention of critical conditions is in relation to addressing the hydrologic period, when it says, "It is not to be confused with critical period of high stress." Instead, the correct information is found in Appendix G, which is titled "Determination of Critical Conditions for the Chesapeake Bay Total Maximum Daily Load (TMDL)." Additionally, I noticed two simple typos that may be something the writers would like pointed out. On page 5 of the executive summary in the third line of the third paragraph up from "Accountability and Goals" it says, "...the allocations happen to be more stringent than the allocations identified above." Here, I am sure that the word "than" was intended, but I figured it was worth sharing.

Response

Thank you for your comment. EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these suggested revisions and where appropriate, has incorporated them into the final TMDL report.

Comment ID 0148.001.001

Author Name: Donnelly R.S.

Organization:

Chesapeake Bay Program Cleanup Strategy

The First Chesapeake Bay Conference was held in 1933; we've come a long way since then. The problems impacting the Bay have progressed geometrically with population density growth. As of 1983, industrial and agricultural pollution were designated as the foremost causes of the degradation of the Chesapeake Bay's health. The first and original Chesapeake Bay Program (CBP) was signed into law; in room 400 of the Senate Office Building in 1983; by 125 signers, of which I am one.

Today; we are faced with a far greater threat to the existence of the Bay. This threat is non-point source pollution caused by every individual living within the Chesapeake Bay Watershed (all 64,000 square miles of it). Our actions; whether corporate or private; are determining the life or death of our National Treasure; the Chesapeake Bay. At this point in time, the diagnosis for the Bay is dark and critical. We must act swiftly and decisively on the opportunity presented to us by President Obama; wherein he issued the Executive Order designating the cleanup of the Chesapeake Bay as a National Priority Project. Relying on the trial and error database evolution of the CBP is a good basic guideline for the avenues of remedy necessary to save the Bay. However; with the limited time given (September 9, 2009) to develop the Action Plan for funding; we must think and plan outside the box to ensure success from our efforts. The following is a small list of bullet point innovations for funded actions; which if properly implemented could show marked improvements in the "State of the Bay".

1. Expand the monitoring of the Bay to focus not only on the nutrients as the guide for the Bay's status; but to further toxic testing, monitoring, and studies throughout the Bay Ecosystem. The worst case scenario for nutrient damage is eutrophication. Toxic damage can effect every level of life within the Bay ecosystem. Also; over time, toxic pollution can and will change the physical chemistry of the entire ecosystem. To not pursue toxic study and monitoring with the same intensity as is- given to nutrients, would be a grave strategic error for any proposed cleanup action.
2. The Buffer Zones surrounding every waterbody; both tidal and non-tidal, must be greatly increased and enhanced to filter the non-point source pollution from the water-returning to the open waterways; with extreme focus on population growth density. At present, the needs of the ecosystem outweigh the means for protection of the Bay Ecosystem and its survival.
3. Integration of enhanced technologies to further expedite restoration throughout the Chesapeake Bay Ecosystem.
4. Bay wide Watershed BAN on dredging or disturbing high priority toxic and hazardous sediments. Redistribution releases of toxic pollution into the open waters of the Bay at present could very well preclude and nullify any restorative actions. The issues entered herein are only a brief statement of possible solutions to the Bay's Restoration efforts. I would be more than happy to further and explicitly define and technically outline specific measures for action funding in this most needed activity. As ever in service, I am,

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Response

EPA notes and appreciates the support for Chesapeake Bay. EPA believes it will take the efforts and innovation of all organizations, industry and citizens to reach the goal of an unimpaired Bay. The Bay TMDL addresses the pollutants of concern, phosphorus, nitrogen and sediment but not toxics. While this TMDL does not address other pollutants that may be a source of impairment for the Chesapeake Bay, reductions to meet the TMDL allocations for nutrients and sediment, especially in the air and stormwater sectors, should also bring some indirect benefits in the reduction of toxics. EPA also agrees with the comment regarding the challenges posed by expanding populations and the importance of appropriate watershed buffer areas.

Comment ID 0154-cp.001.001

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

The City of Gaithersburg concurs with the recommendations given by the Metropolitan Washington Council of Governments (COG) regarding the EPA TMDL Draft & Draft Phase I Maryland & Virginia WIPs.

Response

EPA notes commenters support of comments submitted by COG. EPA provides a response to those comments elsewhere in this document.

Comment ID 0168-cp.001.001

Author Name: Comment Anonymous

Organization:

So by blocking progress in the gas drilling in New York State you are allowing the neighboring states to receive ALL the revenue possibilities and we in New York state get left out ! The gas is going to be pulled out from under New York state and we are NOT going to get any benefits! The water will be affected as it already has been in the past by

progress and we do need to protect our water however, why is nEW yORK BEING LEFT OUT OF THE MONEY BENEFIT! The neighboring states are NOT AS CLEAN AS NEW YORK STATE....why are we being punished for others states short comings of inadequate practices. LET US DRILL AND GET THE REVENUE WE ARE ENTITLED TO!

Response

The Bay TMDL does not prohibit any particular type of activity. Regarding Marcellus shale issues please refer to response to comment 0190-cp.001.002.

Comment ID 0169.1.001.026

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

Errors in Tables 8.3 and 8.4 go beyond mere typographical errors. If the entries in the TMDL are in error, then the ratings of some jurisdictions or river basins may change. Even if there are no changes, there are clearly errors in the draft TMDL table. If there are errors in the TMDL table, they could also impact the backstop allocations in Table 8.7.

Response

The commenter did not identify any specific errors in Tables 8.3 and 8.4, but rather made a general statement that there might be errors. It is EPA's best professional judgment that there were no errors in Tables 8.3 and 8.4 in the draft TMDL and the allocations are appropriate. EPA notes that the final TMDL has revised Tables 8.3 and 8.4 that reflect significantly improved state WIPs and significantly revised EPA allocations.

Comment ID 0187-cp.001.001

Author Name: Comment Anonymous

Organization: Natural Resources Defense Council (NRDC)

The Chesapeake Bay fish will be unfit for human consumption if the EPA does not enforce the law against the corporations that dump toxic pollution into the rivers that feed the Bay.

Response

It is beyond the scope of the Chesapeake Bay Nutrient and Sediment TMDL to address illegally toxic discharges to the Bay. If a citizen believes that individuals are illegally discharging, EPA encourages each citizen to report violations through the State's environmental hot lines. In addition, EPA has an environmental hotline that can be used anonymously to report violations at 1-800-438-2474 or www.epa.gov/tips. The reductions necessary to achieve the nutrient and sediment reductions, especially those from

stormwater and air reductions, should also provide an indirect benefit of providing some reduction to toxic discharges to the Bay.

Comment ID 0190-cp.001.002

Author Name: Comment Anonymous

Organization: Natural Resources Defense Council (NRDC)

Also note the fact that the hydraulic fracturing being carried out all over the United States is increasing the demand for frac sand and the need for strip mining of frac sand. Taking large and very ancient sandstone bluffs out of northern WI is not a pleasant, safe or healthy thing to see. Quarries will dot our countrysides. Please help us out in Wisconsin by stopping hydraulic fracturing in all the states where there is shale!!!!

Response

It is beyond the scope of this TMDL to discuss the merits or consequences of Marcellus Shale drilling operations. This TMDL does not address the impact of current Marcellus Shale Drilling operations as sources of sediment and nutrients to the Chesapeake Bay watershed. However, in this TMDL, States need to identify areas of future growth that may contribute to future sediment and nutrient loads to the Chesapeake Bay. EPA does see that drilling operations may have the possibility of contributing to nutrient and especially sediment loads to the Bay and should be included in the State's future considerations of sources of those pollutants. We encourage States to look at all possible future growth activities within their jurisdiction, including Marcellus Shale drilling operations to consider and potentially control their future load contribution of nutrient and sediment loads to the Bay.

Comment ID 0202.1.001.018

Author Name: Carl Jimmie

Organization: Southern Tier New York WWTP

We would like to emphasize that we believe New York State has been a good upstream neighbor to the Bay states. Furthermore, we continue to remain committed to protecting and improving our water quality. That is what we do as WWTP owners and managers. What we are asking of you, our elected federal representatives, is to;

- Promote state and federal legislation to extend the phosphate ban on household cleaning products to include automatic dishwashing detergent, to limit phosphorus at the source.

Response

EPA agrees that legislation such as the phosphate ban may be effective in reducing loads to the Bay.

Comment ID 0205-cp.001.001

Author Name: Comment Anonymous

Organization: Natural Resources Defense Council (NRDC)

The 2010 Constitution of the United States of America will vastly reduce most pollution caused by excessive bureaucracy, the military-industrial complex, and America's politically contrived addiction to non-renewable energy.

Response

EPA does not understand this comment or its basis, and cannot therefore provide a response.

Comment ID 0212.1.001.001

Author Name: Greenland Victoria

Organization: Arlington County, Department of Environmental Services, Virginia

We wish to begin by noting our general concurrence with the submitted comments of the Virginia Municipal Stormwater Association (VAMSA) [See comment EPA -R03-2010-0279-0288.1] and the Metropolitan Washington Council of Governments (COG) [See comment EPA-R03-2010-0279-0442.1] on the draft TMDL, which are hereby incorporated by reference as if fully set forth in this letter.

Response

EPA notes the commenter's support for the submitted comments of the Virginia Municipal Stormwater Association and the Metropolitan Washington Council of Governments. EPA responds to these comments elsewhere in this document.

Comment ID 0213.1.001.011

Author Name: Daley Edwin

Organization: Hopewell Regional Wastewater Treatment Facility (HRWTF), Virginia

Additional Comments: HRWTF is continually looking for more cost effective means of reducing our nitrogen load on the James River. In 2009 we began a study using ARRA funding provided through EPA and Virginia DEQ to determine if algae biomass could be used to remove nitrogen from our wastewater. A final report on the results of the first year of the study is expected in the next few weeks. We will continue this study for at least another year and possibly more in the hopes that we will learn more and find a new technology that can meet our needs and the needs of the James River in an economical and cost effective manner. We are dedicated to improving the environment, but also have a fiduciary responsibility to our citizens and to the industries that we serve to make our compliance decisions based on sound

science.

Response

EPA appreciates and shares the commitment of the organization to environmental improvement and sound science.

Comment ID 0234.1.001.004

Author Name: Dickey Dean

Organization: Prince William County Service Authority (PWCSA), Virginia

UOSA has submitted detailed comments regarding water quality in the Occoquan Reservoir based on the scientific monitoring and modeling performed by the OWML. PWCSA staff has served on the OWMS and are intimately familiar with the work of OWML. PWCSA strongly supports the comments provided by UOSA, including the technical exhibits detailing OWML studies, and incorporates them into its comments by reference.

PWCSA staff has also served in a variety of positions in the Virginia Association of Municipal Wastewater Agencies and the Virginia Nutrient Credit Exchange Association. PWCSA strongly supports the comments provided by VAMWA. PWCSA fully endorses VAMWA's positions on the need to maintain regulatory stability for municipal wastewater treatment facilities, the need to correct flaws in the Bay model and the importance of applying cost-benefit analyses in developing the TMDL.

Response

EPA notes the commenter's support of comments submitted by UOSA and VAMWA. EPA has provided responses to the comments of those organizations elsewhere in this document.

Comment ID 0235.1.001.003

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

TMDL allocation maps incorrectly place Poquoson in the James and York River watersheds. Poquoson does not drain to these rivers.

Response

EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these suggested revisions and where appropriate, has incorporated them into the final TMDL report where appropriate.

Comment ID 0253.1.001.004

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

The County supports and fully adopts the comments submitted by the Virginia Municipal Stormwater Association, Inc. ("VAMSA") [See comment 0566.1] and the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA") [See comment 0288.1]. The County is a member of both organizations. VAMSA's and VAMWA's comments are hereby incorporated by reference as if fully set forth herein, including all attachments and documents incorporated into those comments.

Response

EPA notes the commenter's support for comments submitted by VAMWA. EPA provides responses to those comments elsewhere in this document.

Comment ID 0256.1.001.014

Author Name: Lisanti Mary

Organization: Local Government Advisory Committee (LGAC) to the Chesapeake Bay Executive Council

LGAC recognizes that the Draft TMDL will be revised and issued again before the end of the year, and that, next year, there will be further refinement of allocations down to a finer scale, quite possibly on a local government jurisdiction level. The TMDL will be a dynamic force to which the principals of adaptive management must apply. But, unless the issues we have raised are not addressed, there will be little chance of the kind of success that will be needed to restore and protect this incredible resource we call the Chesapeake Bay.

As elected and appointed local government officials, our job is to get elected, then beyond that, to govern. We are judged on our ability to provide services, manage our budgets, and provide leadership on a dizzying array of complex issues. Our collective experience over the years has shown us that, in order to be successful, we must find the right balance in a vast community of competing interests. Time and again, elected officials have been catalysts in finding common ground on which to govern. The challenge we have before us is to be aware of the essential economic well being of our communities as well as the need to provide a clean, healthy environment that will nurture those communities. Our choices are rarely either/or, rather they are of finding the right balance. As we go forward with the TMDL, we encourage all our partners to keep our goals in sight and to use common sense and balance in the decisions we need to preserve and protect our treasured national resource, the Chesapeake Bay.

Response

EPA agrees with the commenter that there are benefits to implementing the Bay TMDL in a flexible, adaptive management approach through each State's watershed implementation plan taking into account local government commitments and concerns.

Comment ID 0260.1.001.010

Author Name: Brosious John

Organization: Pennsylvania Municipal Authorities Association (PMAA)

EPA needs to partner with scientific and technical experts to develop new technologies that can be implemented in the various sectors contributing to the nutrient and sediment load. They need to encourage pilot programs and offer funding for new and innovative solutions to reductions. These efforts can be in conjunction with other federal agencies such as the Department of Agriculture, Department of Energy, USGS, etc. They should also be in conjunction with state agencies, local governments, and "vetted" providers of new technologies.

Response

EPA notes and agrees with the commenter, and notes that such constructive partnerships have been a cornerstone for the Chesapeake Bay Program and this TMDL.

Comment ID 0279-cp.001.002

Author Name: Comment Anonymous

Organization:

The EPA has good intentions at the core although it is going too far and has become overzealous and hurtful to other important aspects of life. I would support a reduction in the influence of the agency if they cannot recognize the forest for the trees.

Is your agency trying to destroy the viability of life in the Great State of New York? There needs to be balance. NY continues to lose residents to states with greater economic viability. We need the economic opportunity provided by the Marcellus shale.

Response

The purpose of the Bay TMDL is to restore the aquatic life uses of the Chesapeake Bay not to destroy the economic viability of the State of New York. For a discussion of the Marcellus Shale issue please refer to response to comment 0190-cp.001.002.

Comment ID 0330.1.001.014

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

The City respectfully requests that the EPA give strong consideration to the technical comments provided by the HRPDC (provided under separate cover) in drafting the final TMDLs. The Hampton Roads localities have long benefited from regional cooperation in implementing MS4 NPDES permits and meeting water quality goals. On behalf of the City of Chesapeake, I trust that reasonable water quality goals, which fairly allocate pollutant load to each contributing sector in a cost effective manner, will be developed. The Chesapeake Bay, our City's namesake, remains a treasure in which our citizens are willing to invest to the extent practicable. We look forward to working with the Commonwealth and the EPA to identify reasonable TMDL goals that will serve restore and protect the Chesapeake Bay.

Response

EPA notes support of the comments submitted by HRPDC.

Comment ID 0338-cp.001.001

Author Name: Gore Ron

Organization: Acer Hill Farm

WE, the beef cattle farmers of virginia are committed to responsible environmental stewardship by meeting 52% reduction goals for Nitrogen and 50% for phosphorus and sediment. Clean water and good soil are vital to our business. we urge you to consider the impact that this TMDL will have.

Response

EPA appreciates the commitment to environmental stewardship and clean water.

Comment ID 0343.1.001.001

Author Name: Gammill Nicholas

Organization: Maryland Turfgrass Council (MTC)

The Maryland Turfgrass Council (MTC) would like to respond to EPA's draft proposal for TMDL diet plan to the Chesapeake Bay. MTC represents Turfgrass stakeholders including golf courses, sod productions, lawn cares and sports turfs. We have 1200 members and we value our impact on the Chesapeake Bay eco -system and would like to work with EPA in limiting the TMDL to the Bay.

Steps already taken:

Golf Courses

1. Nutrient management plans are in place
2. Water quality measurements are taken monthly
3. Tight budgets limit the overuse of fertilizers
4. Locally produced poultry manure are used in most courses
5. Total turf cover limits the sediment runoff to zero
6. Increase use of mechanical management practices i.e. aeration
7. Increase participation in voluntary organizations i.e. Audubon Society (AS)

Sod productions

1. Nutrient management plans are in place
2. Budget impacts overuse of fertilizers
3. Newly laid sod is an important component for erosion and sediment control

Lawn cares

1. Have limited applications of phosphorus
2. Budget restraints limit over application
3. Standard practice is implemented which is remove any over application on hard surfaces
4. Increase use of mechanical management practices i.e. aeration

Homeowner Lawn cares

1. Retailers have limited phosphorus content in fertilizers
2. Increase acceptance of organic slow release fertilizers
3. Extension services are educating homeowners on proper application

Sports turfs

1. Education through the Sports Turf Management Association (STMA)
2. Increase use of mechanical management practices i.e. aeration
3. Reduction in fertilizer applications due to the increase use of artificial turf

Maryland Turfgrass Industry acknowledges these specified contaminants that are currently being addressed:

Nitrogen

1. More acceptable use of organic slow release nitrogen
2. Organic nitrogen has lower available nitrogen rates

Phosphorus

1. Lawn care, golf course , etc. have used fertilizers with little or no phosphorus
2. Phosphorus application is only used for seeding and new sod establishment

Sediments

1. Experts in the industry recognizes that when a healthy Turfgrass is well-maintained, you have little or no sediment moving off site
2. Sediment runoff occurs at new construction sites and on hard surfaces where no Turfgrass exists.
3. Turfgrass is nature's best water filter.

Benefits of healthy Turfgrass

- Turfgrass provides a runoff sink and recharges ground water reserves.
- Turfgrass provides a living biological surface with usable space for people to walk, play and recreate.
- Turfgrass provides a green expanse for visible security.
- Turfgrass can provide a temporary area for storage and parking that recovers quickly from these measures.

Storm Water Runoff

Most of Maryland's Storm Water Management (SWM) systems were designed and built over 50 years ago with the aim to remove as much water as quickly as possible. Retro fitting and redesigning is a necessary solution for urban and suburban runoff. This is an expensive, but extremely important part of MS4 development. Urban nutrient management is increasingly difficult because of the vast number of sites. When SWM system starts to fail, they are typically rebuilt to the original specifications instead of being retrofitted to current designs needed. Leaf collection has been cancelled at some municipalities because of budget restraints. Leaf removal should be a required activity for all developed properties as leaves contain a high degree of phosphorus. Maintenance is rarely done to remove contaminants from storm water intakes. Turfgrass can be an important part in achieving these goals of slowing down and filtering out storm water. Rain gardens have become popular recently in urban and suburban areas. This development should be promoted through education to the public.

Non-point sources

Turfgrass is typically wrongly viewed as a non-point source of pollution. As non-point sources are difficult to identify and the EPA has limited authority to restrict them, it would be better to concentrate efforts on point sources such as agriculture, waste water treatment plants, and erosion control on construction sites. These point sources will be much easier to calculate reductions in TMDL. Non point sources can be best reduced by education and acceptance of an environmentally friendly practice developed together with the green industry, environmental and local jurisdictions. The Maryland Turfgrass Council would like to work with the EPA and Maryland State government to develop strategies in order to achieve consumer and green industry compliance, and cleaner water standards for our State. The Maryland Turfgrass Council has been providing funding for the University of Maryland's Turfgrass program for over 30 years. We also provide education through our annual educational programs, our website and our periodical magazine. Biannually, we invite the public to The Maryland Turfgrass Farm to see the demonstration plots and to witness the ongoing research done by the Turfgrass program at University of Maryland College Park. We feel that the continued education

and research are the best solutions to solve the misconception that a healthy Turfgrass is causing pollution problems in the Chesapeake Bay. Turfgrass is part of the solution and not part of the problem.

Response

EPA appreciates the commitment noted by the commenter towards nutrient reduction and agrees with the beneficial effects of properly managed turfgrass. EPA agrees and encourages each State to consider all new and innovative methods and technologies in refining WIP and in two year milestones that will help achieve the nutrient and sediment load reductions established by the TMDL.

Comment ID 0387.1.001.001

Author Name: Crabtree Carol

Organization: Eastern Panhandle Regional Planning and Development Council, Region 9 (RPDC)

The Eastern Panhandle Regional Planning and Development Council- Region 9 held its regular Full Council meeting on October 18, 2010. At this meeting the Council established a committee to address EPA's comments on the deficiencies of West Virginia's Watershed Implementation Plan (WIP) and over the concerns of limited availability of federal and/or state funds for these mandates. Jefferson County Commissioner, Lyn Widmyer was asked to chair this committee.

EPA held a public meeting in Martinsburg, WV on Wednesday, November 3. At this meeting EPA indicated any public comment for the record needed to be submitted electronically to EPA via www.regulations.gov, Docket ID No. EPA-RO3-OW-2010-0736.

Response

Comments noted.

Comment ID 0391.1.001.001

Author Name: Downes Paul

Organization: Mountaire Farms Inc.

Mountaire Farms owns and operates facilities that produce or contribute to the production of poultry products. Mountaire Farms provides safe and affordable food for Americans all across the United States. Some of these facilities are located on or near the waters of the United States, and some are located within the 64,000 square mile Chesapeake Bay watershed.

Mountaire Farms would like to voice our support for the detailed comments on the Draft Total Maximum Daily Load (TMDL) for the Chesapeake Bay. 75 FR 57776 submitted by U.S. Poultry and Egg Association (USPOULTRY), National Chicken Council (NCC) and National Turkey Federation (NTF) on behalf of the poultry industry.

Response

EPA notes the commenters support for the comments submitted by U.S. Poultry and Egg Association, National Chicken Council and National Turkey Federation on behalf of the poultry industry. EPA responds to those comments elsewhere in the document.

Comment ID 0427-cp.001.001

Author Name: Phelps Harriette

Organization: University of the District of Columbia (DC)

My comments are as a professor studying the origins of EPA Priority Pollutants in the highly contaminated Anacostia River. EPA's Priority Pollutants are known persistent toxic chemicals that bioaccumulate in fish, birds etc e.g. Polychlorinated Biphenyls (PCBs), Pesticides like DDT and Chlordane and Polycyclic Aromatic Hydrocarbons. These EPA Chesapeake Bay Pollutants are NOT being addressed in the Draft TMDL. The Draft TMDL misleadingly calls nitrates and phosphates Pollutants when their historic designation is Nutrients. Sediment is also misleadingly called a Pollutant. The reasons for this deceptive and incorrect naming appears to be mostly political. The result is to bypass and not deal with EPA toxic pollutant problems in the Chesapeake Bay. EPA toxics will persist in the Bay and the Draft does not pass the scientific smell test.

Response

The definition of “pollutant” at Section 502(6) of the CWA means “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.” This broad definition includes nutrients and sediment. The Bay TMDL was appropriately established to address pollutants of concern, phosphorus, nitrogen and sediment, as defined by the CWA. This TMDL does not address other pollutants that may be a source of impairment for the Chesapeake Bay.

Comment ID 0440.1.001.006

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

- Need for flexibility: The Chesapeake Bay TMDL should be flexible, and recognize likelihood of innovations over the next 15 years to expedite clean-up efforts (filter feeders, algae harvesting, wastewater land application for irrigation.)

Chief requests in comments: 1.) Create forum for understanding costs and how financial burdens should be distributed - especially urban stormwater retrofits; 2.) Extend deadline to correct model; 3.) Clarify meaning of "reasonable assurance;" 4.) Adopt flexible approach that will allow for innovations and allow time for an effective nutrient trading

system to apply to non point sources.

The following comments were approved by the Virginia Association of Counties Board of Directors on November 7, 2010

The Virginia Association of Counties (VACo) is a statewide organization representing all of Virginia's 95 counties. VACo exists to support county officials and to effectively represent, promote and protect the interests of counties to better serve the people of Virginia.

VACo appreciates this opportunity to comment upon the Draft Chesapeake Bay Total Maximum Daily Load (TMDL) document issued by the U.S. Environmental Protection Agency (EPA) on September 24, 2010. VACo commends all who were involved with the DRAFT TMDL document.

VACo has a strong interest and stake in the success of efforts to restore water quality in the Chesapeake Bay. County officials share U.S. EPA's interest in improving the quality of all of Virginia's waters. Because of the Chesapeake Bay Program's status as a model to emulate for future restorative efforts in other parts of the United States, it is essential that the strategy for implementing the Chesapeake Bay TMDL have as its foundation a strong partnership where federal, state and local government stakeholders reach agreements on how responsibilities should be shared and costs should be distributed. For the reasons detailed below, it is VACo's belief that the DRAFT TMDL released by EPA on September 24 is not a reflection of that type of partnership. On

August 6, 2010 VACo's Environment and Agriculture Steering Committee adopted the following policy statement relating to water quality issues. This statement, which provides the context for the comments below, was adopted by the committee largely in response to discussions about the anticipated Chesapeake Bay TMDL:

VACo supports effective partnerships among and across all levels of government to improve water quality.

VACo urges state and federal agencies to carefully consider impacts on local governments of any initiatives intended to reduce loadings of pollutants into state waters from both point and non-point sources. In order for comprehensive, watershed-wide, water quality improvement strategies to be effective, major and reliable forms of financial and technical assistance from federal and state governments will be necessary. VACo supports the goal of improved water quality but will vigorously oppose provisions of any strategy that threatens to penalize local governments by withdrawing current forms of financial assistance or imposing monitoring, management or similar requirements on localities without providing sufficient resources to accomplish those processes.

VACo's comments (below) address the following seven aspects of EPA's Draft Chesapeake Bay TMDL:

- Fiscal and economic impacts upon local governments;
- The Accuracy of the Bay Model; • Impacts of the DRAFT TMDL upon Agriculture;
- The Organizational Structure of Chesapeake Bay Program;
- Governance: "Accountability" and "Reasonable Assurance", and the Time Frame for Issuing the TMDL;
- The pending deadline for the Phase II WIP; and
- Consideration of more innovative and cost-effective measures.

Local government efforts to reduce pollutant loadings into the Chesapeake Bay are producing results. Between 1985 and 2009 nitrogen loadings into the Chesapeake Bay have declined from 86.5 million to 65.7 million pounds-a 24 percent reduction. Phosphorus loadings have declined from 11.31 million to 7.14 million pounds-a 37 percent reduction. These reductions have largely been achieved through the efforts local governments, the agricultural sector, and businesses.

In recent years many Virginia local governments, especially those in the Chesapeake Bay watershed, have invested heavily in upgrades to wastewater treatment systems and improvements to storm water management programs. Fifty-five publicly owned wastewater treatment plants have either installed, or are in the process of installing, biological nutrient removal systems totaling \$1.344 billion. More than half of this sum (\$696.4 million) will have been paid for by Virginia's local governments (whose primary revenue source is the real property tax), with the remainder being financed through contributions from Virginia's Water Quality Improvement Fund and other sources.

This financial commitment demonstrates the dedication of state and local government officials in Virginia to the improvement of water quality. Furthermore, through these investments, many wastewater treatment plants have been upgraded to comply with stringent standards established by the Virginia Water Control Board to limit nutrient discharges. These standards are embodied in a Watershed General Permit that became effective on January 1, 2007. In addition, with support from local governments, Virginia has embraced an innovative credit exchange program that has become a model for the nation.

Over the past two decades, many of Virginia's counties have amended their respective land use regulations to minimize impacts to surrounding waters from new development. While acknowledging that more needs to be accomplished to improve water quality, local officials in Virginia have worked, and will continue to work, hard to assure that lands within their respective borders are responsibly managed for the protection on natural resources. VACo also has an interest in enhancing efforts by the agricultural community to improve water quality. With VACo's support, Virginia has invested \$80 million into the Agricultural Best Management Practice (Ag BMP) cost-share program since 2006.

VACo is working with the Virginia Department of Conservation and Recreation (DCR) in the development of new state rules that will impose significant pollutant loading limits on new development. By statute, these new state storm water regulations must be adopted by the Virginia Soil and Water Conservation Board by December 11, 2011. VACo supports scientifically based limits on new development as a necessary measure for improving water quality. These comments will address several the key issues associated with the DRAFT Chesapeake Bay TMDL, the first of which will be the anticipated fiscal and economic impacts that will profoundly affect local governments.

Response

EPA believes that the TMDL process provides flexibility and opportunities for TMDL revisions as noted in Section 10 of the final TMDL report. Section 7.1 of the TMDL report provides a definition of “reasonable assurance” as requested by the commenter. With regards to the voluntary activities that are occurring within the commenter’s jurisdictions, please refer to response to comment 0089.1.001.002. With regards to comments concerning the models used in this TMDL, please refer to Section 5 of the TMDL and response to comment 0379.1.001.006. With regards to comments concerning trading, the TMDL document provides a discussion on trading found in Section 10.2. With regards to concerns about the economic impacts implementing this TMDL, please refer to response to comment 0501.1.001.005.

Comment ID 0440.1.001.014

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

Recommendation:

Through improved storm water control and other programs, local government officials are willing to assume a reasonable share of responsibility for reducing non point source pollution problems. In the meantime officials at the state and federal levels may wish to consider policy changes that could result in significant reductions in non point source pollution. This is an area where it would be most appropriate for federal and state regulation to come into play, as it did when phosphates were banned from laundry detergents. Along those lines, there should be similar evaluations at the state and federal level of fertilizers and other commonly used products that are carried into state waters in storm water run-off.

To upgrade aging urban storm water systems in many urban areas, VACo suggests that the federal government assume a leadership role in developing an aggressive incentive program, with grants, low interest loans, and other financial inducements to encourage local and state governments to upgrade older infrastructure and improve the performance of existing storm water systems. Under this program, several different types of projects could be eligible for funding, including stream bed restoration, Low Impact Development (LID) projects, and others. Also, since air depositions have been identified as a major source of nutrient loadings, EPA should consider additional reductions for stationary and mobile sources with air emissions. The Chesapeake Bay Program Office (CBPO) has estimated that atmospheric sources account for about one third of the nitrogen reaching the Bay, and the majority of this load is attributable to areas outside the Chesapeake Bay watershed (EPA, 2010).

Response

EPA agrees that new federal and state regulations may play a part in reducing nutrient loads being delivered to the Bay. With regards to atmospheric deposition of nitrogen, please refer to Section 6.4.1 and Appendix L of the TMDL which discusses the atmospheric load calculations and the consideration of future federal regulations that will reduce nitrogen emissions. With regards to comments concerning funding, EPA provides a number of funding sources for stormwater projects. Please refer to EPA's webpage located at http://www.epa.gov/owow_keep/NPS/funding.html for more information about funding stormwater projects.

Comment ID 0440.1.001.016

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

7.) Consideration of more innovative and cost-effective measures

The DRAFT TMDL fails to adequately consider the benefits increasing filter feeder populations (oysters, Atlantic menhaden) as a component of restoration efforts. The DRAFT TMDL also fails to acknowledge and incorporate such other innovations as algae harvesting for renewable energy, and land application of treated wastewater for irrigation purposes.

Recommendation:

The TMDL's language should be more flexible and be more receptive toward an adaptive management approach recognizing that over a 15-year period there will be technical advancements yielding vast improvements to restoration efforts in terms of efficiency and cost-effectiveness. For example, EPA's TMDL for the Chesapeake Bay should include the following practices as important restoration activities that could generate saleable credits to help all source sectors meet their pollutant reduction goals: the cultivation of filter feeder populations, the harvesting of algae, land application of treated wastewater, and other practices.

In order to allow for the utilization of innovative, more cost-effective practices that may emerge within the next few decades, VACo also believes the structure of the Chesapeake Bay Program should remain as flexible as possible.

Response

The Bay TMDL is meant to be implemented in a flexible, adaptive management approach through each State's watershed implementation plan. The best use of future technological advancements should be part of each State's deliberations as they plan to implement the TMDL to meet the necessary sediment and nutrient reductions. Section 10.7 and Appendix U discuss the role filter feeders play in the uptake of nitrogen and phosphorus from the Chesapeake Bay. The Chesapeake Bay TMDL does consider and appropriately incorporates the effects of filter feeders.

EPA is basing the TMDL on the current assimilative capacity of filter feeders at existing populations built into the calibration of the oyster filter feeding submodel of the Chesapeake Bay Water Quality/Sediment Transport Model. Potential future population changes in the filter feeders would not be automatically be accounted for in the Bay TMDL but may provide be a basis to adjust the actions necessary to meet the allocations. If future monitoring data indicate an increase in the filter feeder population, the appropriate jurisdiction's 2-year milestone delivered load reductions can be adjusted accordingly. Similarly if reductions in future filter feeder populations are observed that result in reduced nutrient assimilation, the 2-year milestone delivered load reductions can be adjusted to account for the change.

Comment ID 0466.1.001.011

Author Name: Suarez Julie

Organization: New York Farm Bureau (NYFB)

Farmers continually focus on improving their farm operations, including on-farm environmental management. Because of this continual desire to improve, any strategy for addressing water quality in the Chesapeake Bay Watershed needs

to include efforts that expand our applied environmental knowledge base. Support for evaluating better system feedback through data collection as well as improved processes through increased research funding is critical if we want to effectively increase water quality.

Response

EPA agrees with the commenter and plans to continue support such information gathering and sharing as part of the Chesapeake Bay Program.

Comment ID 0467.1.001.014

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

Has EPA conducted an economic analysis of the impact of its backstop allocation approach on ratepayers of municipal wastewater treatment plants?

5. For the Authority's AWTF, EPA's imposition of the "backstop allocation" approach will require significant upgrades to achieve year-round complete nitrification and denitrification, accounting for maximum month flows and loads, refractory organics (rDON), temperature, and other factors that will affect optimum performance. Evaluations will be needed to determine the most cost-effective combination of processes to achieve the required limit of technology performance.

At this point it is representative to consider that in order to reduce TN to 3 mg/l, additional activated sludge facilities will be needed to insure complete nitrification and additional denitrification filters will be needed to increase denitrification efficiency. Regarding TP reduction to 0.1 mg/l, denitrification filters are not intended to achieve sufficient TSS removal to meet this low level. An additional enhanced flocculation process may be required. This introduces a complication, in that the low TP requirement may impact the growth of biological denitrifiers in the DN filters. Therefore, higher TP levels may need to be maintained through the DN filters and post chemical precipitation and finer media filtration may be needed to polish the DN filter effluent.

The enhanced upgrades described above to meet the backstop allocation will have significant impacts on both capital and O&M costs for the Authority's AWTF. In addition, site space constraints to accommodate these expanded facilities will probably affect the process selection/configuration and costs as well.

6. What are the expected additional capital, annual, and present worth costs associated with implementation of the backstop limits of 3 mg/l total nitrogen and 0.1 mg/l total phosphorus?

7. What are the expected savings in capital, annual, and present worth costs associated with implementation of the reallocation of additional total nitrogen and total phosphorus to the agricultural and developed segments?

8. What analysis has EPA made on the social impacts of such reallocation?

9. Has EPA considered the social justice of such re-allocation given that larger populations of minorities and low to moderate income families reside in the cities and boroughs that are served by public sewers than in the agricultural and developed segments?

Response

Based on significant improved State Final Phase I WIPs and consideration of comments, EPA has made significant changes in the final TMDL allocations including the removal of the PA WWTP backstop allocation. Please see Section 8 of the final TMDL for EPA's final decisions on backstops. EPA and the states hear your concern and understand that dischargers want set, certain limits that are attainable at a reasonable cost. EPA and the states want those things also, however, we also are in a position that past programs, controls and investments have not achieved the level of water quality necessary to meet the designated uses of our rivers, creeks, estuaries and the Bay. Accordingly, it is necessary to periodically evaluate how well we are doing and determine what additional steps are necessary to achieve water quality. We are in that position now, and it is EPA's best professional judgment that these additional steps will be sufficient to restore the Bay and surface water bodies. With regards to comments concerning an economic impact of the TMDL, please refer to response to comment 0139.1.001.017. Please see response to comment 0213.1.001.004 for a discussion of EPA's WIP backstops.

With regards to social justice please see the response to comment 0467.1.001.026.

Comment ID 0467.1.001.026

Author Name: Williams Shannon

Organization: The Harrisburg Authority, Harrisburg, Pennsylvania

WHEREAS EPA's proposed plan to impose more stringent discharge limits will cost the City of Harrisburg significant sums of money - through increased construction costs and/or additional purchase of nutrient credits.

WHEREAS EPA's proposed discharge limits will have a significant economic impact on the AWTF and its ratepayers, with rates anticipated to increase eighty percent (80%) of current rates (\$180 extra per year).

WHEREAS, the City of Harrisburg has a majority minority and low income population with twenty five percent (25%) below the poverty line.

WHEREAS, these same people often experience higher levels of environmental pollution and other social and economic burdens that result in poorer health outcomes, and fewer financial or advocacy opportunities to spend on many activities, including "greening" their communities.

WHEREAS, EPA's environmental justice policy requires review and evaluation of these social and economic burdens.

WHEREAS, the draft Chesapeake Bay TMDL has not evaluated the City of Harrisburg's environmental justice concerns.

Response

Please refer to response to comment 0139.1.001.017 regarding the economic costs of implementing this TMDL. The Chesapeake Bay TMDL provides allocations for all areas to ensure water quality standards are met throughout the watershed, regardless of the minority or low income population of a jurisdiction within the watershed. Environmental justice will be achieved through the Bay TMDL because all citizens of the watershed will enjoy the same degree of environmental protection regardless of race, color, national origin, or income.

Comment ID 0474.1.001.001

Author Name: Wolff Scott

Organization: Honeywell International, Inc.

The Hopewell Plant of Honeywell International, Inc. welcomes this opportunity to provide comments on EPA's Draft Chesapeake Bay Total Maximum Daily Load ("TMDL") for nutrients and sediment.

Honeywell International, Inc. operates a manufacturing facility in Hopewell, Virginia with nearly 700 full-time employees. Honeywell is proud to be a part of the economic, social and educational fabric of the local community, and is committed to protecting the environment, including water quality in the James River and Chesapeake Bay.

Honeywell's Hopewell facility holds a VPDES permit for wastewater discharges to the James River, and an Industrial User Permit for wastewater discharges to the Hopewell Regional Wastewater Treatment Facility. As a result, Honeywell's Hopewell facility will be uniquely affected by the Chesapeake Bay TMDL, both as a "permitted facility" and a contributor to another "permitted facility."

Honeywell is a member of the Virginia Manufacturers Association ("VMA") and supports their comments on EPA's Chesapeake Bay TMDL. We also support the comments that the City of Hopewell is filing on the TMDL. We request that EPA thoroughly consider and address all of the comments submitted by the VMA and City of Hopewell, which we support and hereby incorporate by reference as if fully set forth herein.

In closing, Honeywell supports regulatory actions based on good science and sound technical conclusions. In this spirit we urge EPA to carefully consider the significant and relevant information contained in the comments submitted by the VMA and City of Hopewell.

Thank you again for the opportunity to provide these comments. If you have questions or require additional information, please contact me at (804) 541-5631 or at scott.wolff@honeywell.com.

Response

EPA shares the commenter's commitment to sound science. EPA notes the commenter's support for the submitted comments of the VMA and City of Hopewell. EPA responds to those comments elsewhere in this document.

Comment ID 0480.1.001.017

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

Unhealthy waters increase public health burdens associated with consuming tainted fish or shellfish or exposure to waterborne infectious disease while recreating. For example, one study estimated the cost associated with exposure to polluted recreational marine waters to be \$37 per gastrointestinal illness, \$38 per ear ailment, and \$27 per eye ailment due to lost wages and medical care. [FN 54] Furthermore, although closing a beach is meant to prevent illness, it directly and indirectly results in an economic loss for local businesses and the county where the beach is located. For example, a study by NOAA indicated that a one day beach closure in Huntington Beach, California was expected to result in thousands of dollars of lost income for local communities. [FN 55] There are hundreds of beach closures in the bay region each year, [FN 56] potentially resulting in hundreds of thousands of dollars of lost income for local economies.

[FN 54] R. H. Dwight, et al. 2005. Estimating the economic burden from illnesses associated with recreational coastal water pollution a case study in Orange County, California. *Journal of Environmental Management*. Vol:95103.

[FN 55] http://stateofthecoast.noaa.gov/coastal_economy/beacheconomics.html.

[FN 56] NRDC. 2010. Testing the Waters: A guide to water quality at vacation beaches. <http://www.nrdc.org/water/oceans/ttw/ttw2010.pdf>.

Response

EPA agrees that pathogens can cause human health problems. The Bay TMDL addresses the pollutants of concern, phosphorus, nitrogen and sediment but not pathogens (bacteria). While this TMDL does not address other pollutants that may be a source of impairment for the Chesapeake Bay, reductions to meet the TMDL allocations for nutrients and sediment, especially in the stormwater and agricultural sectors, should also bring some indirect benefits in the reduction of pathogens.

Comment ID 0499.1.001.001

Author Name: Grimm James

Organization: Texas Poultry Federation

The Texas Poultry Federation would like to voice our support for the detailed comments on the Draft TMDL for the Chesapeake Bay. 75 FR 57776 submitted by U.S. Poultry and Egg Association, the National Chicken Council and

National Turkey Federation on behalf of the poultry industry.

Response

EPA notes the commenter's support for comments submitted by U.S. Poultry and Egg Association, the National Chicken Council and National Turkey Federation on behalf of the poultry industry. EPA provides responses to those comments elsewhere in this document.

Comment ID 0500-cp.001.001

Author Name: Sylvester N.

Organization: US EPA CBPO

1. Page 2-5, last paragraph. Correct population info as follows: From 1950 through 2008, the Bay watershed's population doubled, increasing from 8.4 million to 16.9 million. The 8- year period from 2000 to 2008 witnessed population growth of approximately 8 percent from 15.7 million. Today, nearly 17 million people live in the watershed. According to census data, the watershed's population grew by about 148,000 per year between 2000 and 2008.

Response

It is important that under the TMDL, the loading caps are not only achieved but maintained in the face of growth. The state WIPs have provided information on how the state addresses the growth issue.

Comment ID 0500-cp.001.002

Author Name: Sylvester N.

Organization: US EPA CBPO

2. Page 7-8, end of first paragraph in section 7.2.2. The following statement is very confusing:

"Starting in calendar years 2010-2013, the federal government will also be providing 2-year milestones."

Not sure what you are trying to say, but perhaps it should be revised to say "Starting in calendar year 2011, the federal government will begin developing two-year milestones for the period January 2012 through December 2013, and subsequent two-year periods of time."

Response

EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these

suggested revisions and where appropriate, has incorporated them into the final TMDL report.

Comment ID 0500-cp.001.003

Author Name: Sylvester N.

Organization: US EPA CBPO

3. Page 7-9, figure 7.1 needs to be revised. The x axis is incorrect and should indicate milestone periods that go through the end of a calendar year (e.g. Dec 2011, which is the end of the state's first milestone period) and start at the beginning of a calendar year (e.g. January 1, 2012, which is the beginning of the federal government's first two-year milestone period and the state's second two-year milestone period which will be from Jan 1, 2012 through Dec 31, 2013).

Response

EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these suggested revisions and where appropriate, has incorporated them into the final TMDL report.

Comment ID 0504.1.001.008

Author Name: Elliott James

Organization: Citizens Advisory Committee to the Chesapeake Executive Council

we are deeply committed to preserving healthy agriculture in our communities. Rural landscapes are integral to the fabric of our region's culture. Just as clean water is important to healthy communities, so are healthy, local food sources. We believe responsible agricultural practices are good land uses. The states have the lead in designing their WIPs to accommodate agricultural viability and responsible farming practices. However, we encourage the EPA to use the Chesapeake Bay Program as a venue to promote and share successful examples across the watershed that demonstrate healthy farm practices, the community ethos that support them and the mechanisms that promote practice verification.

Response

EPA appreciates the commitment to healthy farm practices and environmental concerns. In developing this TMDL, EPA has worked closely with the states and USDA to recognize and credit effective practices as reflected in the State WIPs and EPA allocations based on those WIPs.

Comment ID 0506.1.001.001

Author Name: Schwalb Steven

Organization: Perdue Farms Incorporated

Perdue Farms Incorporated would like to voice our support for the detailed comments on the Draft Total Maximum Daily Load (TMDL) for the Chesapeake Bay. 75 FR 57776 submitted by U.S. Poultry and Egg Association (USPOULTRY), National Chicken Council (NCC) and National Turkey Federation (NTF) on behalf of the poultry industry.

Response

EPA notes the commenters support for the comments submitted by U.S. Poultry and Egg Association, National Chicken Council and National Turkey Federation on behalf of the poultry industry. EPA responds elsewhere in the document to those comments.

Comment ID 0515.1.001.008

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

G. The EPA Provides No Environmental Impact Assessment for the TMDL

Given the geographical extent of coverage of the TMDL, in New York the State Environmental Quality Review Act ("SEQR") mandates an environmental impact assessment and, likely, a full environmental impact statement be prepared and be subjected to a full, coordinated review. This is an essential planning process that can safeguard against unintended consequences. Just as full SEQR compliance is mandatory for development of nutrient and sediment-trapping wetlands and other control measures in New York when funded with federal dollars by the U.S. Department of Agriculture ("USDA"), this TMDL (an EPA rulemaking) should not be exempt from a full and proper environmental impact assessment process, such as New York's SEQR process would afford. Indeed, as a tool governing land use, New York's WIP-I - as well as the TMDL itself - should be subjected to such a process. The goal of SEQR is to protect the environment by promoting a full understanding of the effect of a proposed action or development, as well as safeguard against unintended consequences.

As proposed, the TMDL does not consider/address the carbon footprint/global warming impact of TMDL implementation, which may be significant and detrimental to the Bay. Specifically, the TMDL may have the unintended consequence of increasing other forms of pollution, including greenhouse gases believed by many to contribute to the potential of global warming, which if unchecked would have dire consequences for the Bay and its shoreline population at present water's edge, especially if a rise in sea level occurs. For example, in order for our Facilities to denitrify, somewhere in the range of 182,500 gallons per year of the chemical methanol is used as a carbon source. Because it is a distilled wood product, methanol requires large amounts of energy to produce, as well as the harvesting of trees that once had a moderating effect on ambient carbon dioxide. Further, this chemical must then be transported by ship, rail and/or truck to reach its delivery point, thereby requiring further consumption of energy with attendant emissions, including airborne TN from the oxides of nitrogen in vehicular exhaust. Moreover, upgraded solids handling equipment and the biological aeration filtration ("BAF") system installed at our Facilities to remove sediment and CBOD, break-

down ammonia through nitrification, as well as denitrify together consume large amounts of electricity. Between July 2007 (pre-BAF operation) and July 2009 (full BAF operation), our electricity consumption more than doubled (from 400,000 kwh per month to 1,005,115 kwh per month) and - owing to the augers, conveyors, centrifuges, large pumps, process air blowers, and compressors integral to these systems - the power "demand factor" of our Facilities has more than tripled (from 702.72 kw to 2,391.04 kw) over the same period. Much of the electricity consumed at our Facilities is generated through the burning of coal and fossil fuels. The TMDL provides no evidence that the EPA studied the overall environmental impact of upgrading a wastewater treatment facility such as ours to meet much more stringent TMDL and backstop standards in terms of the greenhouse gas and climate change effect from these emissions. In the quest to save the Chesapeake Bay, is one form of pollution being "exchanged" for another?

Throughout the Bay watershed, there are numerous power generation plants and other industrial operations which discharge cooling water warmer than ambient river temperature. Has the cumulative effect of thermal discharges of this type been studied? Neither the TMDL nor the draft CBWM documentation, though incomplete (and to the extent provided), includes any indication that this aspect of thermal pollution has been examined. Even though largely localized, the changes in habitat may have increasing downstream impacts that are detrimental to the Bay.

Response

This TMDL is not a new rule, law or regulation. EPA has developed this TMDL based on the requirements of Section 303(d) of the Clean Water Act (CWA) and the implementing regulations found at 40 CFR 130.7. The CWA and federal regulations require that TMDLs be designed to meet existing, applicable water quality standards (numeric, narrative, uses and anti-degradation), include wasteload allocations (WLA) for each point source, load allocations (LA) for non-point sources (allocated to specific sources if data allow, or gross allotments to source types), consider seasonal impacts, include a margin of safety and consider reasonable assurance that the allocations can be met. This TMDL meets all of these legal requirements. EPA is not required to conduct an Environmental Impact Assessment for New York.

Comment ID 0515.1.001.029

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

I. As the TMDL is implemented, the EPA should also take steps to more closely monitor the Bay watershed for the presence and impact of other pollutants or contaminants such as the byproducts of pharmaceuticals (including antibiotics [human and agricultural]) and byproducts of personal care products, hormones (including agricultural growth hormones, synthetic estrogens or "estrogen mimics"), and other endocrine disrupters (such as Bisphenol-A and Phthalates). In large areas of the Bay watershed, exploitation of the natural gas deposits in the Marcellus Shale formation are being pursued via horizontal drilling combined with hydrofracturing using chemical-laced "proppant cocktails" containing dissolved or suspended hydrocarbons, trace metals and solids. Some of these dissolved solids may become assimilated into the tissues of fish and other aquatic life. Consideration should also be given to importation of non-native invasive or nuisance species "hitchhiking" on drilling rigs and other vehicles brought into the Bay watershed. Discoveries of hermaphrodite fish as well as studies documenting the gender imbalance of fish populations downstream from wastewater treatment plant outfalls are indicia of the negative effects on species indigenous to the

Bay watershed. See, <<http://www.baltimoresun.com/features/green/bs-gr-fish-20101102,0,4595447.story>> for a very recent report of such a discovery in the Susquehanna River.

Response

EPA agrees that the Chesapeake Bay may be impacted by discharges of other pollutants such as toxics. The Chesapeake Bay has an extensive monitoring network as discussed in Section 5 of the TMDL report. The Chesapeake Bay tidal monitoring network includes tidal water quality monitoring for 26 parameters at over 150 stations distributed over the 92 Chesapeake Bay tidal segments, shallow-water monitoring addressing a select set of segments on a rotational basis, benthic community monitoring at fixed and random stations across the tidal waters and annual aerial and ground surveys of underwater Bay grasses. The EPA, the States and their partners will continue monitoring the health of the Bay and evaluate any cause or source of impairment. With regards to comments related to Marcellus Shale drilling operations, please refer to response to comment 0190-cp.001.002.

Comment ID 0523.1.001.007

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

We understand that the Draft TMDL is fundamentally and materially flawed as a technical matter, especially with regards to the James River components. Serious chlorophyll standard and computer modeling deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA"). We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference [Comment Letter contains additional information in the form of an attachment. See original comment letter 0523.3. Attachment corresponds to comment letter EPA-R03-OW-2010-0736-0228.1.] as if fully set forth herein.

Response

EPA disagrees with the comment that the TMDL is fundamentally flawed and notes the commenter's support for comments submitted by VAMWA. EPA responds to those comments elsewhere in this document.

Comment ID 0527.1.001.004

Author Name: Romanello Anthony

Organization: County of Stafford, Virginia

We request that EPA fully consider and address all of VAMSA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein. [incorporates VAMSA's comments by reference.]

Response

EPA notes the commenter's support for comments submitted by VAMSA.

Comment ID 0528.1.001.017

Author Name: Barnes C.

Organization: County of Spotsylvania, Virginia

Spotsylvania also recommends close review of the comments submitted by the Virginia Association of Municipal Wastewater Agencies (VAMWA) and the Virginia Municipal Stormwater Association (VAMSA). These organizations have thoroughly analyzed the far reaching impacts of the draft TMDLs and offer legitimate alternatives to what is currently proposed. Spotsylvania Supports the comments of VAMWA and VAMSA, and incorporates them by reference.

Response

EPA notes the commenter's support for comments submitted by VAMWA and VAMSA. EPA has provided responses to those organizations elsewhere in this document.

Comment ID 0538.1.001.004

Author Name: Charles Mark

Organization: City of Rockville, Maryland

Through an September 22, 2010 Federal Register notice, the U.S. EPA solicited public comments on the Draft Chesapeake Bay Total Maximum Daily Load for Nutrients and Sediments (Bay TMDL). For its size, the City of Rockville, Maryland implements one of the most effective stormwater programs in the nation. Consequently, we have extensive experience in these matters. Further, we believe our perspective is important for EPA to consider when assuring the successful implementation of the Bay TMDL.

Please find our comments attached to this letter. We very much appreciate the opportunity to share our perspective on the Bay TMDL. Should you be interested in following up our comments, please contact me at (240) 314-8871, or contact Jake Marren of my staff at (240) 314-8876.

Response

EPA appreciates the commenter's commitment to effective environmental stormwater programs.

Comment ID 0552.1.001.004

Author Name: Steidel Robert

Organization: City of Richmond, Virginia

Finally, we understand that the Draft TMDL is materially flawed as a technical matter. Serious computer modeling deficiencies are documented in the comments of VAMSA. We request that EPA fully consider and address all of VAMSA's comments, which we generally support and hereby incorporate by reference [Comment Letter contains additional information in the form of an attachment. See original comment letter 0552.1. Attachment corresponds with comment 0293.1] as if fully set forth herein.

Response

EPA disagrees with the comment that the TMDL is fundamentally flawed and notes the commenter's support for comments submitted by VAMSA. EPA responds to those comments elsewhere in this document.

Comment ID 0554.1.001.020

Author Name: Murphy James

Organization: National Wildlife Federation (NWF)

b. Bay Watershed Wetlands and Non-navigable Streams Are Essential to Restoring and Protecting the Chesapeake Bay Region.

Science has made clear that headwater streams and wetlands are crucial to the health of the Bay, and collectively have a significant nexus to the Bay and its navigable tributaries. In general, headwaters are important in achieving water quality and have enormous impacts on downstream waters, especially in light of climate change. For instance:

- Headwaters serve to reduce flooding by storing flood waters from rain events and snow melt, which will be increasingly important as major storm and flooding events increase;
- Headwaters recharge groundwater and replenish downstream flow, which will be increasingly important as water quantity and stream flow are stressed by increases in droughts and evaporation rates;
- By storing water, headwater wetlands moderate flow rates and can provide cooler waters to downstream streams and rivers, functions that will become increasingly vital as climate change places stresses on stream flow and causes temperatures in many waters to increase;
- Wetlands filter out harmful pollutants such as nutrients and pathogens, which will increase with increased intensity of storm events; and
- Small streams similarly have enormous potential to remove nutrients and other pollutants as water makes much more contact with the bed of the stream in smaller streams.

i. Bay Watershed Headwater Wetlands and Streams Filter Pollutants.

Chesapeake Bay's headwater wetlands and streams are essential tools in combating nutrient enrichment in the Bay because they absorb, filter, and recycle this pollution, preventing eutrophication.[FN104] Studies have shown that non-tidal wetlands near the Chesapeake Bay removed an estimated 89 percent of the nitrogen pollution and 80 percent of the phosphorus pollution that entered the wetlands through upland runoff, groundwater, and bulk precipitation.[FN105] In Eastern Maryland, concentrations of nitrate pollution have been found to decrease in watersheds with a prevalence of forested wetlands.[FN106] Wetlands restored in an agricultural area on the Delmarva Peninsula removed an average of 68 percent of nitrate nitrogen.[FN107]

As the Fourth Circuit explained in *United States v. Deaton*,[FN108] the filtering effect of wetlands is actually reversed, releasing trapped pollutants back into surface and groundwater, when wetlands are drained and developed. Protecting and restoring the Chesapeake Bay's wetlands and non-navigable tributaries is essential to reducing pollution downstream in the Chesapeake Bay and its major tributaries.

[FN104] Carl Hershner et al., Center for Coastal Resources Management, *Wetlands of Virginia: total, isolated and headwater*, (February 2003) citing, inter alia, Peterjohn, W.T. and D.L. Correll, *Nutrient dynamics in an agricultural watershed: Observations on the role of a riparian forest*, *Ecology* 65(5): 1466-1475 (1984); see generally David K. Mueller & Dennis R. Helsel, *Nutrients in the Nation's Waters - Too Much of a Good Thing?*, U.S. Geological Survey Circular, No. 1136 (1996).

[FN105] EPA Region III ANPRM Response, at Appendix D, Literature Review: Character and Function of "Isolated Wetlands," U.S. EPA, Philadelphia, PA (2003) at 13-14 citing Peterjohn, W.T. and D.L. Correll (1984), *supra*; see also, Tiner, R.W. and D.G. Burke, *Wetlands of Maryland*, U.S. Fish and Wildlife Service, Ecological Services, Region 5, Hadley, MA and Maryland Department of Natural Resources, Annapolis, MD (1995) at 146-147 (the "riparian forest" in the 1984 Peterjohn and Correll study was later recognized to be part of a wetland continuum).

[FN106] Phillips, P.J. et al, *Effect of Forested Wetlands on Nitrate Concentrations in Ground Water and Surface Water on the Delmarva Peninsula*, 13 *Wetlands* 75-83 (1993).

[FN107] Jordan, T.E. et al., *Restored Wetlands in Crop Fields Control Nutrient Runoff in Nutrient Cycling and Retention in natural and Constructed Wetlands*, pp 49-60.

[FN108] 332 F.3d 698 (4th Cir. 2003), cert. denied, 541 U.S. 972 (2004).

Response

EPA agrees with the commenter that the Bay's wetlands and non-navigable streams are essential to restoring and protecting the Chesapeake Bay.

Comment ID 0571.1.001.009

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

3. Fully consider and act on the input it receives.

Response

EPA has fully considered and acted as necessary on all comments received as documented in this Response to Comment Section of the final TMDL.

Comment ID 0597-cp.001.001

Author Name: Comment Anonymous

Organization:

I believe it to be true and logical that a full flowing river would provide cleaner water than a river that has been depleted of its normal flow. Hydrofracking for natural gas is and will continue to extract many more millions of gallons reducing water flow that will in turn allow organic vegetative growth to establish only to be taken down to the Chesapeake when fuller flow returns after rain storms etc. State and Federal regulators need to look at alternatives to so much river water use for hydrofracking eg requiring closed-loop systems etc.

Response

Please refer to response to comment 0190-cp.001.002.

Comment ID 0606.1.001.002

Author Name: Schmidt-Perkins Dru

Organization: 1000 Friends of Maryland

I. Voluntary Action Is Not Enough

Years of voluntary restoration measures by the States have failed. It is time for strong action and real leadership from the EPA. The EPA, along with the Chesapeake Bay states, has worked for decades in a cooperative manner through a transparent and public process to reduce pollution leading to the Chesapeake Bay. Unfortunately, water quality goals set in the 1980s and in 2000 have not been met, triggering the development of the TMDL. In addition there is a clear and lengthy record of EPA, and the states, going to considerable lengths to ensure that both technical and economic attainability were addressed during this process. The new Chesapeake Bay tidal water quality standards are both scientifically valid and protective under the Clean Water Act, and at the same time, are economically and technically attainable.

Despite years of study and promises, the voluntary approach to Bay restoration has officially failed. A brief history of bay restoration efforts shows that the voluntary approach has been in place for almost forty years:

--1972: U.S. Senator Charles "Mac" Mathias (R-Md) introduced legislation directing the EPA to embark on a major research project to determine the Bay's problems and make recommendations on how to solve them.

--September 1983: the EPA released a lengthy report, Chesapeake Bay: A Framework for Action. The report also provided an innovative blueprint for the intergovernmental, inter-jurisdictional "Chesapeake Bay Program" that was formed in December when the Chesapeake Bay Agreement of 1983 was signed by a group that would be known as the Chesapeake Executive Council - the governors of Maryland, Pennsylvania and Virginia, the Mayor of the District of Columbia, and the Administrator of the EPA.

--1987: Congress passed the reauthorization of the Water Quality Act of 1987 (Clean Water Act or "CWA"), which included a new section entitled "Chesapeake Bay". This provision, known as Section 117, basically codified the Chesapeake Bay Program and authorized Congress to continue funding the restoration effort at \$13 million annually.

--December 1987: the Chesapeake Executive Council signed the 1987 Chesapeake Bay Agreement, which for the first time included specific quantitative goals and commitments. The centerpiece of the Agreement was a goal to reduce nutrient pollution to the Bay by 40% by 2000.

--1992: The 1992 Amendments to the Chesapeake Bay Agreement was signed by the Council and "capped" the 40% reduction goal after 2000. In addition, the 1992 Amendments recognized the need to reduce nutrients in the tributaries, and called for the states to develop "tributary-specific strategies" on how to meet the nutrient reduction goal. The states all drafted tributary strategies in the late 1990's which were not required to be reviewed or approved by anyone outside of state government. The Amendments also recognized the need for "intensified efforts to control nonpoint sources of pollution, including agriculture and developed areas...", as well as the need to engage Delaware, New York and West Virginia in the efforts to reduce nutrients in the tributaries.

--1998: A lawsuit filed by the American Canoe and American Littoral Society against EPA alleged Virginia was not timely and complete in listing its Clean Water Act Section 303(d) impaired waters and preparing TMDLs for those waters, and that EPA failed in its non-discretionary duty under the Clean Water Act to take over when the state had failed to do so. The lawsuit was settled with a consent agreement in the Federal Eastern District of Virginia court on June 11, 1999. Under the terms of the court agreement, EPA would ensure that Virginia completed its listing of impaired waters and developed TMDLs for all waters on the 1998 list by May 1, 2010. If Virginia did not do so, EPA would complete them no later than May 1, 2011.

--1998: the Chesapeake Executive Council adopted Directive 98-2, which directed the Bay Program to develop a new Chesapeake Bay agreement for 2000, and to present a draft set of options and recommendations to the Council in 1999. The new language made the intent to meld the voluntary and regulatory approaches clear.

--2000: The Chesapeake Executive Council signed the Chesapeake 2000 agreement. Although the 40% nutrient reduction goal from 1987 was still not met, the Chesapeake Bay Program adopted new stronger goals, and set up a clear path of regulatory and voluntary actions to ensure that the 2010 clean up goals would be met. Both Delaware and

New York signed an MOU with the other Chesapeake Bay Program partners and agreed to adopt the Water Quality goals of the Chesapeake 2000 agreement - West Virginia followed suit in 2002.

--April 25, 2003, Virginia's Secretary of Natural Resources Tayloe Murphy sent a memorandum to all of the Bay Program partners. The Memorandum, Summary of Decisions Regarding Nutrient and Sediment Load Allocations and New Submerged Aquatic Vegetation (SAV) Restoration Goals, clearly laid out the allocations which were to guide the development of state specific tributary strategies by 2004. These allocations were "TMDL-like", and are very similar to EPA's proposed TMDL nutrient allocations released earlier this year and again as part of this draft TMDL. [FN 1] All of the Bay states developed updated tributary-specific strategies, most final in 2004. For the past seven years all of the states have known what their load reduction allocations would be, and have developed strategies to meet them.

--2005: Technical work on the TMDL actually began unofficially with the convening of the Chesapeake Bay Reevaluation Steering Committee (now known as the Water Quality Goal Implementation Team) whose initial focus was on updating and revising the watershed and water quality models.

[FN 1] Using the Phase 5.3 Watershed Model, implementation of the Tributary Strategies is expected to result in annual loads of 189.7 million pounds of total nitrogen, 14.2.5 million pounds of total phosphorus and 6.4 billion pounds of sediment compared to the draft TMDL caps of 187.4 million pounds, 12.5 million pounds and 6.3 billion pounds, respectively.

Response

EPA agrees, the Bay criteria are based on scientific research in accordance with Sections 117(b) and 303 of the CWA to derive water quality criteria specifically for addressing the critical nutrient and sediment enrichment parameters necessary to protect designated uses in the Bay. EPA agrees that voluntary actions alone will be ineffective in achieving water quality standards for the Bay. Please refer to response to comment 0089.1.001.002.

Comment ID 0614.1.001.001

Author Name: Street William

Organization: James River Association (JRA)

The JRA staff uses Virginia water bodies for scientific study, educational programs, and recreational purposes that are vital to our mission. JRA owns land adjacent to the James River and conducts programs on the river and adjacent properties giving it valuable economic interests in protecting water quality and the health of the river. JRA's members enjoy a wide range of recreational activities, including fishing, swimming, and boating, throughout the James River Basin and in other Virginia water bodies. Also, our members have important economic, professional, and aesthetic interests in the health of Virginia water bodies. Thus, JRA and our members have direct, substantial, past, and ongoing interests that will be affected by the Chesapeake Bay Total Maximum Daily Load and the Virginia Watershed Implementation Plan.

JRA incorporates by reference the comments submitted by the Choose Clean Water [See EPA-R03-OW-2010-0736-

0480.1] Coalition, of which JRA is a member.

Response

EPA agrees with the commenter regarding the important economic benefits from clean water and healthy watersheds. EPA provides responses to the comments of Choose Clean Water elsewhere in this document.

Comment ID 0616-cp.001.001

Author Name: Comment Anonymous

Organization: Natural Resources Defense Council (NRDC)

There is another option.

Switch fertilizers.

Eliminate nutrient "runoff" from farms by using the Dutch fertilizer. It has no "runoff" since it is not water soluble.

Eliminate this "dead zone" without having to spend any taxpayer monies.

Just have the farmers buy the comparably priced Dutch fertilizer and start the cleanup at the source.

It would be "economically painless" to the taxpayers and environmentally superior for the "soils."

Response

While these specific recommendations are beyond the scope of this TMDL, EPA agrees that the kind of fertilizer, specific method of application and stormwater runoff are all components of agricultural and residential sources of nutrients. EPA notes that the the States and USDA have provided a number of innovative practices and recommendations to reduce the runoff of nutrients and overapplication of fertilizer. EPA's TMDL allocations are based on the proposed use of some of these practices.

Comment ID 0627-cp.001.003

Author Name: Surkamp Jim

Organization:

The stringent TMDL levels especially for phosphorus might be a goad to ban phosphorus which might be worth trying.

Response

EPA agrees with the comment that such a ban would yield reductions but notes that such a ban is beyond the scope of this TMDL. State bans on phosphates in laundry detergent yielded important reductions in phosphorus in the Bay.

Comment ID 0628-cp.001.001

Author Name: Gallagher Megan

Organization: Shenandoah Valley Network (SVN)

Shenandoah Valley Network (SVN), a coalition of citizens groups working on land use and land protection issues in six counties in northwestern Virginia, has signed on to the extensive comments filed by the Choose Clean Water Coalition in support of TMDL standards and planning.

We would like to make two additional points unique to our region: the need to consider the impacts of natural gas mining using hydraulic fracturing of Marcellus shale deposits and the management of public forest lands in the Shenandoah Valley in rulemaking for TMDL standards.

While the TMDL regulations focus on nitrogen and phosphorous levels from farm and wastewater treatment facilities, they do not address the impacts of gas mining wastewater or the significant sediment issues from the extensive land disturbance created around these gas well sites. EPA has a separate study underway on the impacts of Marcellus shale gas mining on drinking water resources. Our colleagues have been told this is "not related" to TMDL rulemaking. However, we believe intensive gas mining development in the Shenandoah Valley could lead to much greater degradation of water quality in the Chesapeake Bay tributaries in our region. Please see the attached map. [Comment Letter contains additional information in the form of an attachment. See original comment letter 0628.1.001.001]

We were also told that there has been little coordination between TMDL rulemaking and U.S. Forest Service planning for the George Washington National Forest, as a new forest management plan nears completion. SVN strongly supports careful management of drinking water resources in the forest. Land disturbance for timber harvesting, road building and/or Marcellus shale gas mining are likely to have significant impacts on local drinking water quality and the Chesapeake Bay.

Response

With regards to comments about Marcellus Shale drilling operations, please refer to response to comment 0190-cp.001.002. With regards to comments concerning forest management plans, forest lands have been considered as a source of nutrients and sediment to the Bay. EPA has noted in Section 4.7.3 of the final TMDL document that forested areas represent a significant portion of the Chesapeake Bay Watershed as approximately 70 percent of the watershed is forested and open wooded area. However, this land use contributes the lowest loading rate per acre of all land uses. While most of the forest loads of nitrogen come from atmospheric deposition, sediment and phosphorus loads originate from poorly managed forest harvesting. Reducing loads from forested lands may be an important implementation strategy for States to consider. It is not within the scope of the Chesapeake Bay TMDL to address the impacts of forest management plans of the George Washington National Forest on the local drinking water quality.

Comment ID 0662-cp.001.002

Author Name: Comment Anonymous

Organization: National Wildlife Federation Action Fund

With the boom in Marcellus shale drilling going on, we need strong protections to prevent Marcellus waste water from polluting our water supplies.

Response

Please refer to response to comment 0190-cp.001.002.

Comment ID 0680.1.001.001

Author Name: Satterfield Bill

Organization: Delmarva Poultry Industry, Inc. (DPI)

Delmarva Poultry Industry, Inc. supports the detailed comments on the Draft Total Maximum Daily Load (TMDL) for the Chesapeake Bay 75 FR 57776 submitted by U.S. Poultry and Egg Association (USPOULTRY), National Chicken Council (NCC) and National Turkey Federation (NTF) on behalf of the poultry industry.

Our members have worked hard for decades to improve water quality in our region and improvements have been made. On-the-farm best management practices are the norm in our region. Additional practices will be installed as human and financial resources are available to help chicken growers. Our members have a vested interest in improved water quality. After all, they live here and depend upon the local waters.

Response

EPA notes commenter's support for comments submitted by U.S. Poultry and Egg Association, National Chicken Council and National Turkey Federation on behalf of the poultry industry. EPA has provided comments to those organizations elsewhere in this document.

Comment ID 0689.1.001.030

Author Name: Hann Steven

Organization: Capital Region Council of Governments TMDL Work Group

43. In developing the TMDL, did EPA or anyone else consider the secondary environmental impacts associated with phosphorus removal?

Response

The comment is unclear. EPA has considered the local water benefits of reducing phosphorus discharges in the nontidal waters. EPA is not able to respond further to the comment without more information identifying the concerns or points of the commenter.

Comment ID 0692.001.001

Author Name: Rhoe A.

Organization:

Region 3
United States Department of Environmental Protection
Philadelphia, Pennsylvania Hand Delivered to Comfort Inn - Martinsburg

Re: Chesapeake Bay (WV Input - Herbicides & Above-Ground Pools)

Dear Members of the Region 3 Team:

I am writing to ask that the Region 3 Team be diligent in investigating the various sources of pollution from Berkeley County, West Virginia. A report of the loss of yet another tree of size for lumber has died on my land... most likely falling victim to the local "thugs" who want trees and indigenous plants forced into extinction so they can have a vinyl covered box on a piece of very dead, dry dirt.

Additionally, no monitoring of the amount of water being taken from large water sources such as Back Creek, is being done. More importantly, the swimming pools being filled are also being cleaned and discharged into Back Creek.

International Property Maintenance Code and the very recent Clean Safe Berkeley County Ordinance practically forbid people on rural land from growing or keeping maintaining indigenous plants and trees, even along Back Creek. Natural fields are being wiped out by development interests. (These laws have been initiated and voted upon unanimously by the current Berkeley County Commission members.

I hope you will come to my 5 acres and look at the devastation that people armed with right-of-way clearing strength herbicides can do. I am asking that my land also be tested to see if it is safe for habitation and for chickens to produce eggs, which I sell. My gardens and lily beds have been saturated with herbicide for approximately 7 years and WV Dept. of Agriculture refuses to enforce the herbicide regulations. My property adjoins Back Creek.

We have great difficulty even keeping an inspector in the Inwood Field Office and senior inspector(s) does not wish to come from Charleston. We need an increase in salary for that inspector and we need two (2) at the very least.

PLEASE HELP!

Response

It is beyond the scope of the Chesapeake Bay Nutrient and Sediment TMDL to address the loss of local trees or illegal toxic discharges to Back Creek. Nor does the Bay TMDL restrict local government zoning decisions. If a citizen believes that individuals are illegally discharging, EPA encourages each citizen to report violations through the State's environmental hot lines. In addition, EPA has an environmental hotline that can be used anonymously to report violations at 1-800-438-2474 or www.epa.gov/tips.

Comment ID 0711.001.006

Author Name: Schwartz Laurie

Organization: Waterfront Partnership of Baltimore, Inc.

The two areas which we would only ask that greater attention be paid are to a] indicators: we understand nutrients are a major challenge for the Bay; at the Harbor as in other urban areas, bacteria and trash are also major problems, and we would ask that some additional attention be paid to these pollutants.

Response

The Bay TMDL addresses the pollutants of concern, phosphorus, nitrogen and sediment but not pathogens (bacteria) or trash. While this TMDL does not address other pollutants that may be a source of impairment for the Chesapeake Bay, reductions to meet the TMDL allocations for nutrients and sediment, especially in the stormwater sectors, should also bring some indirect benefits in the reduction of other pollutants.

Comment ID 0715-cp.001.001

Author Name: Stephens H.

Organization:

I live in the town of Thurston, NY. I am writing in regards to [redacted] the disposal of industrial sludge and raw sewage. We are one of the many little towns surrounded by [redacted] seventeen thousand acres where they apply millions of gallons of their sludge during the spring, summer and fall. It gets so unbearable from the odor that you can't even go outside, have windows open or even enjoy a cook out. It just makes you nauseous. The land here has a slope and where they apply the sludge it runs directly in all the streams and creeks, polluting our water and air. We too have tried to get some control over this increasing problem but to no avail. NY DEC doesn't seem to enforce or oversee the millions of gallons of this waste being applied to the land. I couldn't even get them to do a water sample of the creeks which are

now all brown and foamy. We were told they didn't have the funding. I would like to see some answers on a federal level and have this investigated as the assault on our environment gets worse every year.

[Personal information in this letter was redacted in accordance with the Privacy Act of 1974]

Response

It is beyond the scope of the Chesapeake Bay Nutrient and Sediment TMDL to address illegal discharges either inside or outside of the Bay watershed. If a citizen believes that individuals are illegally discharging, EPA encourages each citizen to report violations through the State's environmental hot lines. In addition, EPA has an environmental hotline that can be used anonymously to report violations at 1-800-438-2474 or www.epa.gov/tips.

Comment ID 0730.001.007

Author Name: Horst R.

Organization:

I would also like to mention that phosphorus is a necessary fertilizer for starting plants. Please don't create a base saturation requirement so low that it makes it hard to start plants. If our ability to grow good crops is restricted due to nitrogen and phosphorus regulations it may make it hard to feed the growing population in the world. This being said, I am in agreement with moderate regulations.

Response

EPA agrees with the commenter that fertilizer can be beneficial and important to crop production.

Comment ID 0741.001.002

Author Name: Caskey W.

Organization: Isle of Wight County

Additionally, we support the Hampton Road Planning District Commission's (HRPDC) following positions that are outlined in more detail in HRPDC Chairman Stan D. Clark's November 8, 2010 letter to you.

[See HRPDC Comment #0436]

Response

EPA notes the commenter's support for comments submitted by HRPDC. EPA provides responses to those comments elsewhere in

this document.

Comment ID 0758.001.001

Author Name: Prettyman J.

Organization:

I urge you to ACT IMMEDIATELY to save small-mouthed bass from pollution

Background:

90% of male small-mouthed bass are impacted by endocrine disruptors, chemicals that act like hormones. These chemicals come from multiple sources ranging from birth control pills to BPA, from agribusiness to industrial waste. Small-mouthed bass are dying from disease and their population has crashed. Fisherman are being told to catch and release only, but that's not enough.

And it's not just small-mouthed bass in the Susquehanna River that are at risk right now. The Chesapeake Bay, fed by the Susquehanna and all its Pennsylvania tributaries, has dead zones where no life can grow -- including blue crabs, the famous and amazing "beautiful swimmers" of the Chesapeake Bay.

The EPA is the only entity with the authority to crack down on polluters, including agribusiness with huge feedlots which generate intensive waste. The plan put together by PA environmental officials will NOT solve the problem It won't save the small-mouthed bass, the blue crab, or other incredibly interconnected life forms in the Susquehanna River watershed or the Chesapeake Bay.

I could ask you to "protect" the wide-mouthed bass but a better word is "save." EPA has authority to intercede and do what PA officials are failing to do -- SAVE the small-mouthed bass.

DO IT!

Response

EPA notes commentors support for protection of the small-mouthed bass. The Bay TMDL addresses the pollutants of concern, phosphorus, nitrogen and sediment but not pathogens (bacteria). While this TMDL does not address other pollutants that may be a source of impairment for the Chesapeake Bay, reductions to meet the TMDL allocations for nutrients and sediment, especially in the stormwater and agricultural sectors, should also bring some indirect benefits in the reduction of other pollutants.

Comment ID 0767.001.008

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am frightened to hear the statistics of the Chesapeake Bay's condition. I am also dissapointed by the lack of involvement on the EPA's behalf. Both locals and the creatures of the Bay would appreciate and do expect your concern to grow as it seems the issue is.

Response

EPA, States, the District and their many partners have a long history addressing the environmental problems of the Chesapeake Bay. Please refer to Section 1 of the final TMDL which provides detailed information regarding EPA's past, present and future initiatives. In particular, Section 1.2.3 provides a description of the President Obama's Chesapeake Bay Executive Order which calls for the federal government to lead a renewed effort to restore and protect the Chesapeake Bay and its watershed.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 34. TMDL Timeline

Pages 2935 – 3005

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

34 - TMDL TIMELINE

Comment ID 0038.1.001.032

Author Name: Eisen Professor Joel

Organization: University of Richmond Environmental Law and Policy

The EPA must give the states sufficient time to really understand the TMDL nutrient numbers and formulate detailed and specific step-by-step programs to achieve their goals. Deadlines and funding are key components of this document. Without setting strict deadlines, the pace of action tends to slow and eventually stall.

Response

Please see the response to comment 0060.1.001.001

Comment ID 0060.1.001.006

Author Name: Bredwell III Paul

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

Moreover, a 45-day comment period is especially inadequate given the complexity, breadth and potential economic impacts of the proposed TMDL. Providing a meaningful analysis of the proposal is also a time-consuming process. Although the industry already raised several preliminary technical concerns with EPA in recent months related to the Scenario Builder as part of the Bay modeling effort, we are troubled that some of these concerns may not likely be able to be addressed by EPA in time for even the final TMDL rule.

Response

Although the Bay TMDL is a detailed document, the public comment period was not the beginning of EPA's public outreach regarding the TMDL, which has been developed through a highly transparent, inclusive and engaging process during the past two years. The outreach effort has included hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community. Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

EPA has provided a wealth of documentation, background information, modeling data and other support material on its web sites (www.chesapeakebay.net, www.epa.gov/chesapeakebaytmdl), in public meetings, in stakeholder meetings, during conference calls

with partners and stakeholders, on regular webinars and through other means as part of an extensive, collaborative effort to develop the Bay TMDL, particularly over the past two years. Detailed scientific information has been posted as attachments to meeting agendas of the Water Quality Goal Implementation Team and in other places on the public web site, www.chesapeakebay.net, as the process has evolved.

EPA is working diligently to review and respond to all comments and modify the TMDL as necessary based on the public comments and EPA's responses. EPA's review process insured that comments requiring modification of the TMDL would be identified early in order to make the necessary changes were made if needed.

Comment ID 0062.1.001.004

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

We believe that EPA should withdraw the Draft TMDL and instead work with the states in the Chesapeake Bay watershed and the District of Columbia (Chesapeake Bay jurisdictions) to develop TMDLs in 2011 for tidal waters in the Chesapeake Bay watershed impaired by nutrients and sediments. This delay will allow EPA to gather more data to correct errors in the Chesapeake Bay Watershed model relating to assumptions regarding nutrient use and management as well as suburban land characteristics. See letter dated June 11, 2010, from Shawn Garvin, Regional Administrator, EPA Region III, to the Principal's Staff Committee (discussing plans to update the model to address these flaws).

Response

EPA will not be withdrawing the draft TMDL as mentioned in your comments. The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator. The date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010 and as mentioned in your comments included in the settlement agreement between EPA and the Chesapeake Bay Foundation.

Additionally, EPA and the states and D.C. have been working together to develop the Chesapeake Bay TMDL since 2005. During this time we have been modifying and enhancing the Bay model and collecting data from the Chesapeake Bay.

Comment ID 0062.1.001.007

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

In addition, in 2011 EPA anticipates that it will have sufficient data to evaluate whether the dissolved oxygen criteria it is

using are protective. See Draft TMDL, App. D, at 1.

Response

Please see response to 0062.1.001.004

Comment ID 0066.1.001.004

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

The Chesapeake Bay TMDL is a very complex, innovative and far-reaching new rule. Because of the impact the TMDL will have on the home building industry, communities, and the overall region, it is imperative that it be finalized only after all parties are provided sufficient opportunity to give careful thought and consideration to all aspects of the proposal and its supporting documents. EPA's efforts to accelerate the TMDL's completion by cutting a most important element in the development of the Bay restoration program - the public review and comment period - is misguided and wrong. Contrary to this approach, the Agency is strongly urged to provide the public more, not less time. NAHB believes that EPA should extend the comment period for a minimum of 180 additional days.

Response

Please see comment 0060.1.001.006

The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator.

The 45-day public comment period was also the product of negotiation and agreement among the states and EPA. The December 31, 2010 date is also a specific commitment in the Executive Order 13508 Strategy issued in May 2010.

Comment ID 0069.1.001.005

Author Name: Nemura Adrienne

Organization: LimnoTech

First, the TMDL is very complicated and requires review of not only the TMDL report, but numerous supporting documents. The TMDL documents were provided piece meal on EPA's website (www.regulations.gov) and contain numerous typographic errors and missing references. Even EPA did not have sufficient time to ensure that these errors were addressed prior to the public comment period.

Response

All of the documents needed for review of the TMDL were uploaded onto regulations.gov one at a time during the first day of the public comment period, September 24, 2010. To EPA's knowledge no information was missing and an effort has been made to correct any typographical errors in the final report. With regards to comments concerning the models used for the TMDL, please refer to responses to comment 0379.1.001.006 and 0238-cp.001.002.

Comment ID 0069.1.001.006

Author Name: Nemura Adrienne

Organization: LimnoTech

Second, the massive size of the document makes review in a 45-day timeframe impossible. The current version of the report, including the Appendices, is more than 2,000 pages. This does not include the modeling documentation or the documentation to support the Scenario Builder, which forms the foundation of the distribution of the "pollution diet" across the multiple sources.

Response

Please refer to response to comment 0060.1.001.001

Comment ID 0069.1.001.007

Author Name: Nemura Adrienne

Organization: LimnoTech

Third, complete review of the TMDL requires review of the State-developed WIPs. The WIPs and their role in the TMDL are not at all clear. Generally, "implementation" plans are written after a TMDL is finalized. This is so all components of the TMDL are considered and can be implemented. In this TMDL process, EPA required that the states write a significant amount of the implementation plans before the draft TMDL was publicly available. After the WIPs were released, EPA indicated many of them were significantly flawed. If, as EPA has asserted, many of the WIPs are significantly flawed, this raises serious questions about the actual status of the WIPs and how they will work in relation to the TMDL. This uncertainty has a significant impact on the amount of time necessary to review both the TMDL and the WIPs.

Response

Please see the response to comment 0067.1.001.009 and section 8 of the TMDL report.

Comment ID 0070.1.001.014

Author Name: Hughes Robert

Organization: Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

EPCAMR believes that before some WIPS can be completed that watershed assessments still remain to be completed for several watersheds in the Basin. Comprehensive watershed assessments should be completed before developing implementation plans. In the last round of PA's Growing Greener, watershed assessments were not a priority for funding, and in order for them to be eligible for other types of State and Federal funds they need to be. In the Coal Region, implementation plans need to take in to consideration the underground mining hydrogeology and complex geology of the Anthracite Region before we can jump to conclusions that treating in one location is going to improve another that is tied to an underground reservoir that fluctuates temporally and seasonally with rainfall and drought conditions. Loadings will also fluctuate in this situation. EPCAMR staff has assisted the PA DEP and many of our community watershed organizations in the completion of Watershed Implementation Plans in the past.

Response

EPA recognizes the Bay Watershed and the WIPs are not static and will be subject to refinements and revisions. As more or better information becomes available, it is EPA's expectations that the WIPs will reflect that information. EPA anticipates that all stakeholders in the implementation of the TMDL will continue to work together and provide the necessary data and perspective for the next phase of the WIPs.

Comment ID 0101-cp.001.001

Author Name: Guevremont Jon

Organization: Reality Farms

Please consider delaying any implementation of new regulations until further study on existing programs and economic impacts are conducted to assure the proper Bay Model Accuracy.

Response

In developing the Bay TMDL, EPA is implementing requirements of the Clean Water Act. The Clean Water Act is the federal law that governs how to protect the nation's waters. There is no cost-benefit analysis required with the development of a TMDL; it may be appropriate for Bay states and the District of Columbia to address this issue during the development of the WIPs. It should be noted that pollution to the Bay has significantly impacted the livelihoods of stakeholders such as the watermen of the Chesapeake Bay. This is an industry that for generations farmed the Chesapeake Bay for crabs and oysters and for years has been dwindling. Therefore, negative economic impacts within the Bay have already occurred.

In recognition that it may be difficult to meet water quality standards in the Chesapeake Bay, EPA considered whether a use

attainability analysis (UAA) should be conducted. EPA determined that a UAA at this time is premature given that that Bay restoration will involve long term (15 year) implementation. Instead, energy should be focused on developing a Bay TMDL to achieve current standards and thereafter implementing that TMDL. In particular, with a 15 year implementation horizon, EPA believes likely advancements in technology will improve our ability to reduce nutrients and sediment and at a lower cost. A UAA at this time would not be able to anticipate those potential advancements in technology.

Please refer to the responses to comments 0062.1.001.004, 0379.1.001.006 and 0238-cp.001.002.

Comment ID 0137.1.001.004

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

It is impossible to understand why the EPA is rushing the science, the policy decisions, and the public notice and comment period for such an important action.

Response

EPA's actions to improve the water quality of the Chesapeake Bay have been a deliberative and methodical process that began in the 1980s with a voluntary approach. This achieved some reductions in nutrient loads but was unable to allow the Bay to meet water quality standards. Since 2005, EPA has been collaborating with the states on the development of the TMDL.

Comment ID 0145.1.001.008

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

It appears to us that the EPA has rushed the development of this TMDL and has applied modeling tools that were originally designed for continued implementation of a voluntary, cooperative program. The TMDL documents were posted piecemeal (on <www.regulations.gov>) and contain numerous typographic errors and missing references. A corrected Executive Summary was posted shortly thereafter. Even the EPA did not have sufficient time to ensure that these errors and omissions were addressed before the public comment period began.

Response

Please see responses to comments 0069.1.001.005, 0379.1.001.006 and 0238-cp.001.002.

Comment ID 0145.1.001.012

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Generally, "implementation plans" are written after a TMDL is finalized. This is so all components of the TMDL are considered and implementation can be carried-out in a coherent manner. In this TMDL promulgation process, however, the EPA required the jurisdictions to draft their WIPs before the TMDL was even publicly available.

Response

The jurisdictions have been working in collaboration with EPA on the development of the TMDL since 2005 and had the information for the development of the WIPs prior to the release of the draft TMDL to the public, please see the response to comment 0217.1.001.001. The WIPs are a vital component of the Reasonable Assurance of the TMDL and thus needed to be developed by the jurisdictions with the TMDL. EPA notified the jurisdictions and the public regarding the expected WIP schedule and approvability in letters dated 9/11/2008, 11/4/2009 and 4/2/2010.

Comment ID 0145.1.001.014

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

Until the TMDL, underlying documentation and modeling programs upon which it is based are ready to be reviewed in a final form, drafting WIPs is tantamount to aiming at a "moving target". The denitrification upgrade to our Facilities was designed to achieve a maximum 6 mg/L effluent TN, but the draft backstop allocations assigned to New York in Section 8 of the TMDL will require compliance with a 3 mg/L effluent TN limit by New York WWTPs, so it appears that substantial economic waste will have resulted from the upgrade of our Facilities, albeit undertaken in an effort to "do the right thing" for the Bay watershed, but designed and built to what the EPA now regards as "the wrong standard" according to the TMDL. Even in better fiscal times, few (if any) could afford not to "do it right the first time", so it is absolutely crucial that the TMDL and all underlying documentation and modeling first be complete in a final form before made public for review and comment so the "end limits" are fixed.

Response

Please see the responses to comments 0067.1.001.009, 0080-cp.001.002, 037.1.001.006 and 0238-cp.001.002.

Comment ID 0145.1.001.020

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

The EPA repeatedly points to the TMDL schedule included in its May 10, 2010 Settlement Agreement with former Maryland State Senator C. Bernard Fowler, the Chesapeake Bay Foundation, the Maryland and Virginia Watermen's Associations, and others in *Fowler v. EPA* - which calls for the completion of the Bay TMDL by December 31, 2010 - as "the reason" for a truncated public review and comment period.

Nevertheless, the EPA has retained unto itself full authority to revise the schedule and timeline in order to allow for an adequate public comment period. December 31st is but an arbitrary date in the continuum of time. There is no Presidential directive or federal legislation mandating a December 31st completion date for the TMDL.

There is no scientific reason why December 31st must be the completion date for what then would initiate a 15-year environmental restoration process. There have been numerous "slippages" of dates over the past decade - especially with respect to milestones set by the EPA for the EPA to release various components and updates of the Chesapeake Bay Watershed Model - for the convenience of the EPA. Indeed, because the current deadline is nothing more than an agreed-upon date in a voluntary settlement agreement (not a court-ordered deadline), the EPA can renegotiate.[FN5] In fact, the Settlement Agreement expressly grants the EPA flexibility to extend the December 31st milestone and certainly does not limit or modify EPA's discretion to allow the public sufficient time to review and comment on the 92-segment Bay TMDL.[FN6] In our own experience, we are well aware that even consent orders and compliance schedules can be renegotiated to take into account changing circumstances as well as to best serve the goal of "getting it right" even if it takes some more time to do so.

The EPA should not short-circuit the interests and rights of all stakeholders and the public throughout the Bay watershed jurisdictions by refusing to extend the public comment period, especially when it has reserved unto itself the full authority to afford adequate time in the *Fowler Settlement Agreement* and especially under circumstances in which all documentation and calculations underlying the TMDL have not yet been made public.

[FN5] - *Fowler v. EPA Settlement Agreement*, Section IV.A. (p. 22): "The parties may modify any deadline or other term of this agreement in writing." See, <<http://www.cbf.org/Document.Doc?id=512>>, Civil Action No.: 1:09-CV-00005-CKK (D. D.C.).

[FN6] - *Fowler v. EPA Settlement Agreement*, Sections VI. A., D., & E. (pp. 24-25): provides that the Settlement Agreement does not limit or modify EPA's discretion under the APA, or require EPA to violate the APA, and allows EPA to delay deadlines under circumstances "outside the reasonable control of EPA" upon notice to the plaintiffs - without requiring plaintiffs' prior consent).

Response

Please see the response to comment 0061.1.001.008

Comment ID 0154-cp.001.006

Author Name: Dyson Gary

Organization: Planning and Code Administration, City of Gaithersburg, Maryland

- State and Federal governments must acknowledge the current fiscal crisis local governments are facing and provide appropriate support through new funding and authority to raise new revenues. The current deadlines require all plans to be approved before State legislatures even meet.

Response

Please see the response to comment 0061.1.001.008

Comment ID 0169.1.001.031

Author Name: Crim Martin

Organization: Town of Occoquan, Virginia

EPA's slavish adherence to an artificial deadline for establishing the TMDLs and its heavy-handed and opaque approach to date serves only to undermine that partnership and create distrust and resistance on the part of those who will bear the burden.

Response

Please see the response to comment 0061.1.001.008

Comment ID 0194.1.001.002

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

First off, is the fact that EPA has used the December 31, 2010 deadline for a TMDL to be finalized. In effect, EPA has taken an enormous project and said we work backward from this premise. We have never seen a project of this magnitude run that way.

EPA to this day, has continually "moved the target" as states have been trying to respond by developing their watershed implementation plans. Even now, some decisions are based on different model runs and model runs to come.

Response

Please see the response to comment 0061.1.001.008. EPA has not moved the target on the jurisdictions and has been working with

them in an open and transparent manner of the TMDL since 2005. EPA sent letters to the states defining what was needed in the WIPs on 9/11/2008, 11/4/2009 and 4/2/2010. The jurisdictions knew what EPA was expecting in an approvable WIP and they were provided their load allocation prior to the release of the TMDL.

Comment ID 0194.1.001.013

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

EPA needs to realize that a project of this magnitude will take time and has to be done as cheaply as possible. Don't let the timelines get in the way of coming up with public policy that is acceptable to all. If you start losing the PR battle, spur litigation and alienate stakeholders you will not achieve what we understand is the basic goal of EPA, and that is to clean the bay.

Response

Please see the response to comment 0060.1.001.006

Comment ID 0194.1.001.016

Author Name: Ashley Keith

Organization: Home Builders Association of Metro Harrisburg

EPA has indicated that the final TMDL will be in place by the end of 2010. However, the final model run may result in a change to the December pollutant loadings, thus making the final allocations numbers in the 2010 WIPs only provisional. EPA underestimates the "damage" caused by a final TMDL be trumped by yet another model run.

Response

Please see the responses to comments 0061.1.001.008, 0379.1.001.006 and 0238-cp.001.002

Comment ID 0200.1.001.003

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

Given these constraints, the adoption of the TMDL should not occur until a revised WIP (Phase 1 & 2) conveying the cost and loading expectations at the local level are presented. With the expectation, from both EPA and the State of

Maryland, that a significant level of effort will need to be accomplished via local governments, serious consideration should be given prior to TMDL adoption as to implementation capacity.

Response

The TMDL is developed to meet water quality standards. The revisions of Phase 1 and 2 WIPs do not impact the findings of the TMDL and the loads needed that will allow the Chesapeake Bay to meet water quality standards.

Comment ID 0200.1.001.004

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- First and foremost, we suggest that delaying the adoption of the TMDL until the completion of both the Phase 1 and Phase 2 WIPs. It will be difficult to determine feasibility without allocations for source sectors and to determine what options the local jurisdictions could commit to without cost and feasibility information. The ability of a local jurisdiction to even fund all of the measures should impact the timing or other relevant portions of the TMDL before it is officially adopted.

Response

Please see the response to comment 0062.1.001.004 in regards to withdrawing the TMDL and the response to comment 0200.1.001.003 in regards to the TMDL and adoption of the Phase 1 and 2 WIPs.

Comment ID 0200.1.001.010

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- The review timeframe and amount of time for the State to adequately incorporate comments are insufficient.

Response

Please see the response to comment 0067.1.001.020

Comment ID 0217.1.001.001

Author Name: Pozgar David

Organization: Logan Township

Will jurisdictions be given more time to adequately develop the final WIPS?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

EPA is not providing additional time to the Bay jurisdictions for watershed implementation plan (WIP) development. On November 3, 2009, EPA sent a letter to the Principal's Staff Committee (PSC) documenting preliminary basinwide target loads for nitrogen and phosphorous, a link to this letter has been provided below. The November 3, 2009 letter specifically states "These working targets allow each of the jurisdictions to begin development of their Watershed Implementation Plans (Plans) and to move the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) development forward." The letter goes on to state "In spite of likely future changes to the basinwide target loads, EPA considers the preliminary target loads – 200 million pounds per year of nitrogen and 15 million pounds per year of phosphorous – to be appropriate for the purpose of distributing these loads to the basin jurisdictions as working target loads to initiate the watershed implementation planning process in all six Bay waster states and the District." Lastly, EPA clearly stated in the November 3rd letter that "EPA expects the Bay watershed states and the district to immediately move forward to engage local partners on development of the Plans and local level/source target loads." Though the final loadings went down slightly, the level of effort to achieve the new allocations is near identical.

Link to November 3, 2009 Letter:

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/Bay_TMDL_Loads_Letter.pdf

Comment ID 0218.1.001.001

Author Name: Wright Ronald

Organization: Borough of Everett Area Municipal Authority, Bedford County, Pennsylvania

Will jurisdictions be given more time to adequately develop the final WIPS?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while

EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001

Comment ID 0226.1.001.003

Author Name: Harris, Jr. Cecil

Organization: Hanover Courthouse, Hanover County, Virginia

The comment period has not provided adequate time to understand or interpret EPA's proposed allocations based on the Phase 5.3 Chesapeake Bay Watershed Model;

Response

Please see the response to comment 0060.1.001.001

Comment ID 0227.1.001.006

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

In addition to the statutory requirements that EPA develop a Bay-wide TMDL, EPA is also required to take this action pursuant to the consent decree in the Fowler case. In that case, EPA was sued for failing to comply with Section 117(g) and the Bay Agreements. *Fowler v. EPA*, Case No. 09-cv-00005-CKK, D. D.C., January 5, 2009. That matter was settled by agreement between the parties. The agreement provides that EPA will develop a Bay wide TMDL "[b]y December 31, 2010, pursuant to 33 U.S.C. §§ 1313(d) and 1267..." Settlement Agreement Section III.A.1. That agreement set forth a number of other deadlines for submission and completion of state watershed implementation plans. Thus, EPA is also required pursuant to the settlement agreement in Fowler to develop a Bay wide TMDL.

The May 12, 2009 Executive Order

On May 12, 2009, President Obama issued an Executive Order 1350813 concerning restoration and protection of the Chesapeake Bay. The Order directed seven agencies of the federal government to develop recommendations for restoring the Chesapeake Bay. With oversight from the EPA Administrator, those agencies were to develop a final strategy for Bay restoration and protection. On May 12, 2010, such a strategy was issued. One of the goals of the strategy was for EPA to develop a Bay wide TMDL by December 2010 with full implementation by 2025.¹⁴ The

proposed TMDL, and its finalization by December 31, 2010, will implement this important goal of the Executive Order and "restoration strategy."

Response

The completion date for the Bay TMDL of December 31, 2010 was requested by the states in June 2008 and agreed to by the Chesapeake Executive Council, which includes the Governors, the Mayor of the District of Columbia and the EPA Administrator.

Comment ID 0227.1.001.020

Author Name: Strauss Sandra

Organization: Pennsylvania Council of Churches

Some might argue that EPA should wait to establish the Bay TMDL until all the WIPs are done, new agricultural information has been completed for the model (such as accounting for voluntary practices), etc. We emphatically disagree that EPA should delay in establishing the TMDL. This essential legal framework must be established now. As comparison of the 2003 allocations and 2010 draft TMDL has shown, the basic information is well known. Changes in the TMDL allocations which may be envisioned will only be marginal. Bay cleanup will only get harder and more expensive with delays.

Response

EPA has considered the comments but will not delay the Bay TMDL.

Comment ID 0230.1.001.012

Author Name: Henifin Edward

Organization: Hampton Roads Sanitation District (HRSD)

Before turning to these deficiencies, first we are compelled to point out the severe lack of a meaningful opportunity for public review and comment on these complex regulatory proposals. The development of the Bay models has required thousands of hours of time from dozens of EPA staff over many years. However, EPA has not provided an opportunity for the public to understand how the models work and the implications of changes to the input data sets for model results. These results define the allocations that EPA has proposed in the TMDL. Therefore, although the model is being used as far more than a "tool" and is essentially being used to define scope and extent of the TMDL requirements, it very much represents a "black box" that frustrates opportunities for meaningful public review and comment. Furthermore, VAMWA has made requests for information to better understand specific issues of interest in the models, but EPA has not responded to those requests. Against this background of complexity, EPA has only given the public 45 days to comment on what is arguably the most complex TMDL ever developed in the nation. We believe that the lack of transparency in combination with a limited review period fails to comply with both the spirit and the letter

of the Administrative Procedure Act.

Response

Please see the response to comment 0060.1.001.006. Also, please note that VAMWA has been participating in many of the Chesapeake Bay Program's workgroups since 2000.

Comment ID 0232.1.001.001

Author Name: Deboer Jay

Organization: Virginia Association of Realtors

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--The regulatory development process the EPA has used for the TMDL has been too rushed. The EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the response to comment 0062.1.001.004.

Comment ID 0235.1.001.002

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

The EPA's program development is too fast-paced to adequately address and allow for public comment.

Response

Please see the response to comment 0060.1.001.001

Comment ID 0235.1.001.008

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

We fear that implementing absurdly rigorous requirements will backfire, reducing public support of the Chesapeake Bay clean up movement. The EPA is choosing a highly political, rushed, enormous program. The bay would be better served if program development slowed down so that accurate input data, more independent scientific verification, phased implementation, and cost benefit analyses could be included.

We understand that efforts to clean the bay must be strengthened. We understand that restoring the Chesapeake Bay will improve our lives, our City and the region. The question is not whether the Bay should be restored, but how. We urge you to slow the process down, consider the feasibility of meeting requirements on a local level, and try to anticipate any unintended consequences that might result from this program. From the outside looking in, it appears that there is too much emphasis on meeting arbitrary deadlines, and not enough on scrutinizing technical details. The Chesapeake Bay, the millions of people living in its watershed, and our economic future depend on this program succeeding. It must be developed and implemented more thoughtfully.

Response

Please see the response for comment 0137.1.001.004

Comment ID 0235.1.001.009

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

The Chesapeake Bay TMDL program is too fast-paced to allow public comments to be made and considered in program development. As discussed in the Hampton Roads Planning District Commission comments, the 45-day public comment period is too short. It does not provide the public adequate time to analyze and comment on such a vast, complicated program.

The comment schedule also places too little time between public comment and TMDL publication deadlines. There is not sufficient time for the EPA to both review state strategies and adequately address the anticipated volume of public comments. There are only 57 calendar and 37 business days between the public comment deadline and final TMDL publication. There are only 32 calendar and 22 working days between Virginia Phase I WIP finalization and TMDL publication. Valid comments will not be given their due consideration in the interest of meeting a deadline.

Response

Please see the response to comment 0060.1.001.001

Comment ID 0235.1.001.018

Author Name: Helsel, Jr. Gordon

Organization: City of Poquoson, Virginia

WHEREAS, TMDL is a fast-paced aggressive program to improve Chesapeake Bay water quality; and

Response

EPA thanks you for your comments on the draft Chesapeake Bay TMDL. Please see the response to comments 0137.1.001.004 and 0153.001.003 for more information on the process and timetable used to develop the TMDLs and WIPs.

Comment ID 0238-cp.001.001

Author Name: Pangraze P.

Organization: Holladay Properties, Inc.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the response to comment 0060.1.001.001

Comment ID 0249.1.001.001

Author Name: Mixell John

Organization: Fort Littleton Wastewater

Will jurisdictions be given more time to adequately develop the final WIPs?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly

inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0253.1.001.019

Author Name: Hazelett Virgil

Organization: County of Henrico, Virginia

If EPA is truly committed to an adaptive management approach to the TMDLs, it would adopt them based upon the allocations in the Tributary Strategies and then update the TMDLs when the Phase 5.3 CBWM is fully transparent, developed and calibrated to within an acceptable margin of uncertainty. No time would be lost if EPA's accountability framework remains in place to ensure that progress toward achieving the Tributary Strategy allocations continues while work on the Phase 5.3 CBWM and model inputs are underway. In fact, the approach we recommend likely would achieve our mutual water quality goals for the Bay more efficiently, cost-effectively, and quickly by fostering the federal, state, and local partnership that is so critical to an undertaking of this magnitude. EPA's slavish adherence to an artificial deadline for establishing the TMDLs and its heavy-handed and opaque approach to date serves only to undermine that partnership and create distrust and resistance on the part of those who will bear the burden.

Response

Please see the response to comment 0061.1.001.008.

Comment ID 0265.1.001.005

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

At the Commission meeting on October 20, 2010, the HRPDC acted to endorse the following position and attached comments.

- The EPA has failed to provide the localities with a reasonable opportunity to review, evaluate, and comment on the

basis for the proposed allocations.

Response

Please see the response to comment 0060.1.001.001 regarding the comment period.

Comment ID 0269.1.001.001

Author Name: Mixell John

Organization: Forbes Road School District

Will jurisdictions be given more time to adequately develop the final WIPS?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0291-cp.001.001

Author Name: Koch E.

Organization: North Middleton Authority

Will jurisdictions be given more time to adequately develop the final WIPS? The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0298.2.001.008

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC)

II. EPA HAS FAILED TO PROVIDE THE CITY OF NEWPORT NEWS WITH SUFFICIENT TIME TO REVIEW, EVALUATE, AND COMMENT ON THE DRAFT TMDLs

Despite the enormous size and complexity of the 2,000 page plus TMDL documents released on Sept. 24, 2010, the socio-economic consequences of the proposed allocations, and the arbitrary nature of EPA's decision to establish the TMDLs by Dec 31, 2010 when it could have given the public additional time to comment. The City does not have sufficient time to adequately review and respond to the TMDLs in detail. Also, the length of time between the deadline for submission of comments, November 8, 2010 and the December 31, 2010 date EPA has set for finalizing the TMDLs indicates that the EPA simply will not have the time to conduct anything more than the most cursory of analysis of the comments. The City of Newport News will defend vigorously any claim of waiver due to failure to submit comments to the TMDLs on the basis that insufficient time was given to adequately respond.

Response

Please see the response to comment 0060.1.001.001. EPA is working diligently to review and respond to all comments and modify the TMDL as necessary based on the public comments and EPA's responses. EPA's review process insured that comments requiring modification of the TMDL would be identified early in order to make the necessary changes were made if needed.

Comment ID 0300.1.001.002

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

we think that EPA has unnecessarily complicated the task by mandating a Dec. 31, 2010, deadline for issuing the TMDL, rather than taking full advantage of the later court-mandated deadline of May 2011. This aggressive schedule has also created problems for the states with the required schedule for development of their respective WIPs. VDOT requests that the EPA follow a more reasonable timetable for both the WIPs being developed by the states and the TMDL development. VDOT is concerned that the current schedule does not provide the time to accurately evaluate and model conditions in the stream sheds/Bay, to compile the necessary data, to develop detailed action plans, or to understand the cost implications to the regulated community. The compressed schedule has certainly contributed to the

deficiencies identified by EPA with all the draft WIPs developed by the states and especially to the failure in all WIPs to satisfy the reasonable assurance requirement. In striving to meet the interim deadlines, EPA has limited opportunities for stakeholders to understand the technical basis and policy choices on which the target allocations are based. Stakeholders should have several months, at a minimum, to understand the issues involved, to comment on the draft WIP and draft TMDL, and to assess the potential impacts. The proposed 45-day comment period is inadequate for stakeholders to provide informed comments and for EPA and the states to adequately address substantive comments. Therefore, VDOT respectfully requests that EPA evaluate the comments on the draft TMDL, reissue a revised draft TMDL in response to public comment, and allow another 45 day public comment period on the draft TMDL prior to the publication of the final TMDL.

As noted earlier, the compressed preparation period has led to a lack of detailed plans in the Virginia WIP, which has made it impossible for VDOT to evaluate the cost implications of meeting the draft TMDL and WIP requirements.

Response

Please see the response to comment 0062.1.001.004

Comment ID 0300.1.001.006

Author Name: Whirley Gregory

Organization: Virginia Department of Transportation (VDOT)

The ability to provide meaningful input is also hampered by the sheer scale and complexity of this TMDL and WIP process. For instance, in Virginia alone there are expected to be about 100 aggregated WLAs allocated by the TMDL among MS4 permittees. An additional complicating factor is the fact that the TMDLs and WLAs are issued by EPA, while the WIPs are issued by the state. Submitting TMDL comments to EPA and WIP comments to the state creates an artificial distinction between what are, essentially, inter-related issues. These complexities and limited time for review make it very challenging to provide meaningful input and provide recommendations that address the concerns of all stakeholders.

Response

Please see the response to comment 006.1.001.001

Comment ID 0301.1.001.001

Author Name: Pappas Peter

Organization: Middletown Borough Authority

Will jurisdictions be given more time to adequately develop the final WIPs?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0312-cp.001.001

Author Name: Nguyen Vinh

Organization: Northern Virginia Association of Realtors (NVAR)

NVAR appreciated the willingness of EPA officials to meet with industry representatives in October. We believe it was a productive discussion on the effect this plan will have on the development industry.

However, several concerns remain on the implementation details and overall cost-effectiveness of the plan. As a result, we urge the EPA to delay adoption of the TMDL allocations for at least one year in order to address several issues:

Response

Please see the response to comment 0062.1.001.004.

Comment ID 0312-cp.001.005

Author Name: Nguyen Vinh

Organization: Northern Virginia Association of Realtors (NVAR)

The EPA should give immediate consideration to the above issues and delay implementation of the TMDL allocations until such time as all parties can be assured of the true costs of these requirements.

Response

The Clean Water Act (CWA) Section 303(d) requires TMDLs to be established for impaired or threatened waters at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety. Federal regulations at 40 CFR Section 130.7(c) track the statute and require TMDLs to be developed at levels necessary to attain and maintain the applicable narrative and numerical water quality standard with seasonal variations and a margin of safety and that take into account critical conditions. TMDLs are to include wasteload allocations for each point source and load allocations for nonpoint sources. Neither the CWA nor EPA's implementing regulations require the state or EPA to consider the costs to implement the TMDL when establishing the TMDL at a level necessary to implement the applicable water quality standards

Comment ID 0313-cp.001.001

Author Name: Opalisky Larry

Organization: Curwensville Municipal Authority

Will jurisdictions be given more time to adequately develop the final WIPS?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0314.001.006

Author Name: Santulli Thomas

Organization: Southern Tier Central Regional Planning and Development Board (STCRPDB)

The proposed timeline for establishing the final TMDL (by December 31, 2010) does not allow sufficient time for EPA to develop equitable allocations or for the states to prepare realistic Watershed Implementation Plans to meet those allocations. New York's Local Pilot Project (for which STCRPDB is the local partner) has not yet resulted in any recommendations concerning the achievability and cost-effectiveness of the proposed scenarios that are being evaluated. These analyses were intended to inform the development of New York's Draft WIP, which was submitted on September 1. Technical support to the states has also been delayed. Additional time and guidance are needed to develop a TMDL and state WIPs that are equitable and achievable.

Response

Please see the responses to comments 0060.1.001.001 and 0067.1.001.020.

Comment ID 0327.1.001.006

Author Name: Stewart Steve

Organization: Baltimore County

The draft Phase II WIP is scheduled to be submitted to EPA by June 1, 2011. This time frame is too short to be able to compile a Watershed Implementation Plan given the number of stakeholders involved at the local level. The time frame for the draft submittal should be extended to September 1, 2011 with the final in place by December 31, 2011.

Response

The Bay jurisdictions voiced their concerns with the Phase II watershed implementation plan (WIP) timeline to the EPA at the October 2010 Principal's Staff Committee (PSC) Meeting. Shawn Garvin, the EPA Region III Regional Administrator informed the jurisdictions of his willingness to hear their concerns and discuss their options in January 2011 after the finalization of the Chesapeake Bay TMDL and Phase I WIPs.

Comment ID 0331.1.001.010

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

II. EPA HAS FAILED TO PROVIDE THE CITY OF VIRGINIA BEACH, VIRGINIA WITH SUFFICIENT TIME TO REVIEW, EVALUATE, AND COMMENT ON THE DRAFT TMDLs

Despite the enormous size and complexity of the TMDL documents released on September 24, 2010 the grave socio-economic consequences of the proposed allocations, and the arbitrary nature of EPA's decision to establish the TMDLs by Dec 31, 2010, when it could have given the public additional time to comment had it simply observed the May 2011 deadline in the consent decree, the City has not have sufficient time to adequately review and respond to the TMDLs in detail. Forty five days is certainly not adequate to assemble all of the information necessary to respond to the TMDLs. Further, the City will defend vigorously any claim of waiver due to failure to submit comments on the TMDLs on the basis that insufficient time was given to adequately respond.

Response

Please see the response to comment 0060.1.001.001. EPA is working diligently to review and respond to all comments and modify

the TMDL as necessary based on the public comments and EPA's responses. EPA's review process insured that comments requiring modification of the TMDL would be identified early in order to make the necessary changes were made if needed.

Comment ID 0331.1.001.023

Author Name: Wilson B.

Organization: City of Virginia Beach, Virginia

If EPA is truly committed to an adaptive management approach to the TMDLs, it would adopt them based upon the allocations in the Tributary Strategies and then update the TMDLs when the Phase 5.3 CBWM is fully transparent, developed and calibrated to within an acceptable margin of uncertainty. No time would be lost if EPA's accountability framework remains in place to ensure that progress toward achieving the Tributary Strategy allocations continues while work on the Phase 5.3 CBWM and model inputs are underway. In fact, the approach the City recommends likely would achieve our mutual water quality goals for the Bay more efficiently, cost-effectively, and quickly by fostering the federal, state, and local partnership that is so critical to an undertaking of this magnitude. EPA's inexplicable adherence to an artificial deadline for establishing the TMDLs and its deeply-flawed approach to date serves only to undermine that partnership and instead cause significant hardship to the City of Virginia Beach and its citizens, who will ultimately be forced to bear the burden of compliance.

Response

Please see the response to comment 0061.1.001.008.

Comment ID 0332.1.001.001

Author Name: McNeal Brian

Organization: Rebkee Company

We at the Rebkee Company have great concerns with the draft TMDL and backstops proposed by the EPA, many of which have already been raised by Governor McDonnell and Secretary Domenech

o The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0341.1.001.002

Author Name: Anderson David

Organization: Virginia Fountainhead Alliance

The EPA, however, set unrealistic deadlines for establishing the TMDL. Even though the EPA itself was unable to keep to the schedule, it insisted that Virginia and the other Bay states do so. Public comment was limited to a scant 45 days. It was not until July 1 that EPA produced the draft allocation numbers for nitrogen and phosphorus and not until August 15 that EPA produced a draft allocation for sediment. First drafts of the Virginia WIP were due September 1! Thus, Virginia was given two weeks to devise a sophisticated solution for a complex problem that has been more than 400 years in the making.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0341.1.001.006

Author Name: Anderson David

Organization: Virginia Fountainhead Alliance

Last July, at an oversight hearing of the Virginia House of Delegates Committee on Agriculture, Chesapeake and Natural Resources, the Alliance called for enlargement of time in order to produce a state WIP that is thoughtful, necessary, cost-effective, and representative of a stable consensus. The compressed schedule, the lack of meaningful opportunity for public comment, and the reliance on flawed and tardy data have produced a result that is unworthy of its stated goal: restoration of the national treasure that is the Chesapeake Bay. The Alliance continues to believe that doing it right is more important than doing it fast and recommends expanding the time to provide for an inclusive and truly deliberative process.

Response

Please see the responses to comments 0060.1.001.001, 0062.1.001.004 and 0067.1.001.020.

Comment ID 0358-cp.001.001

Author Name: Hassinger Mark

Organization: WestDulles Properties

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001, 0062.1.001.004.

Comment ID 0359.1.001.005

Author Name: Candland Matthew

Organization: Carroll County Water Resources Coordination Council (WRCC), Carroll County, Maryland

The WRCC is exactly the type of intergovernmental entity envisioned by state agencies in the implementation of watershed management. We have worked hard to develop and adopt a groundbreaking "Water Resources Element" creating a cornerstone plan for the County's long-term water, wastewater and water-related natural resources. Having engaged in intense, cross-boundary scientific study and policy analysis of area water issues, we know from experience how difficult and complex these issues can be. Our hope is that the politically-motivated rush for rapid implementation does not inadvertently created flawed regulations and unintended consequences.

Response

EPA and its jurisdictional partners have been working on the Bay TMDL for 5 years in an open and transparent manner which has included over 400 stakeholder meetings in the past two years. Please see the responses to comments 0060.1.001.001 and 0062.1.001.004 for additional information.

Comment ID 0360-cp.001.001

Author Name: Wells Eric

Organization: WestDulles Properties

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0362-cp.001.001

Author Name: Chillemi A.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0366-cp.001.001

Author Name: Melchione Pete

Organization: Southland Corporation

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents,

businesses and local and state governments billions of dollars.

--It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

For a comprehensive discussion of legal issues see EPA Essay Response to Legal Issues provided in response to comment number 0293.1.001.014.

Comment ID 0368-cp.001.001

Author Name: Myers Kenneth

Organization: Borough of Huntingdon

Will jurisdictions be given more time to adequately develop the final WIPS?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0375-cp.001.001

Author Name: Wells Kyle

Organization: WestDulles Properties

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for

EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

EPA notes that the TMDL is not a regulation. Please see the responses to comments 0060.1.001.001, 0062.1.001.004 and 0227.1.001.006.

Comment ID 0376.1.001.023

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

The accelerated pace established by EPA undermines EPA's claims that it values stakeholder input and desires a transparent and open TMDL development process. This is especially true given the fact that the consent decrees that EPA relies upon as the basis for the accelerated timetable don't require the Bay TMDL to be completed until May 2011. EPA itself has chosen to move the deadline up to December 2010.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0376.1.001.025

Author Name: Smith Brooks

Organization: Virginia Manufacturers Association VMA

Virginia's regulatory programs, reviewed and approved by EPA, establish nutrient and corresponding sediment allocations that will achieve significant additional reductions in nutrient and sediment loadings to the Bay watershed. Industrial point sources have made significant investments based on these regulatory expectations. EPA has now threatened to turn the Virginia program on its head, proposing drastically different allocations and expectations, and it has done so through an expedited regulatory process that does not allow sufficient time to address fundamental technical and modeling concerns.

EPA acknowledges that the model is continuing to evolve, that there are technical errors to be corrected, and that the model results do not always accurately predict on-the-ground results. Yet the expedited process EPA has established does not allow time to address those deficiencies and concerns.

Response

In 1997, EPA conducted a year long evaluation to assess the progress that has been made toward reduction of nitrogen and phosphorus delivered to the Bay. The evaluation noted that wastewater discharges reduced their loads by 51% and implementation of nutrient best management practices from nonpoint sources loadings of nitrogen and phosphorus reduced loadings by 7 and 9 percent, respectively. EPA and the seven impacted jurisdiction again reevaluated the nutrient and sediment reductions in 2007. The reevaluation found that sufficient progress had not been made toward improving water quality in the Chesapeake Bay and its tidal tributaries and that nutrients and sediment remained a source of significant impairment for the Bay.

After decades of regulatory and management initiatives to address the nutrient and sediment discharges, the Bay remains impaired. As required by Section 303(d) of the CWA and its implementing regulations, EPA is establishing this TMDL to address the impaired Chesapeake Bay and its tributaries. Section 1.2 of the final TMDL document provides a detailed description of the many activities and actions that have preceded this TMDL.

While EPA recognizes Virginia's past regulatory programs, EPA believes that for the Bay to reach an unimpaired state, a more comprehensive plan with a clear target must be applied. This TMDL with its accountability framework lays the foundation for achieving water quality standards within the Bay. Please see the responses to comments 0060.1.001.001 and 0062.1.001.004 regarding the comment period and TMDL development deadline. Please refer to response to comment 0379.1.001.006 with regards to comments regarding the Bay models.

Comment ID 0380.1.001.005

Author Name: Lyskava Paul

Organization: Pennsylvania Forest Products Association

4. Process, Timetable and Public Comment - The Pennsylvania Department of Environmental Protection has made an effort at soliciting the feedback and assistance from stakeholder such as ourselves throughout the development of the WIP. As a stakeholder, we feel that the timetable established by EPA has been overly ambitious and its accelerated nature has been an unnecessarily detriment to the development of Pennsylvania's WIP, resulting in needless conflict as it relates to EPA's evaluation of Pennsylvania's WIP deficiencies and threats of backstop allocations. We feel that EPA has failed to appreciate the budget constraints being experienced by states during this WIP development process. We found the delays in EPA providing state's with the final draft sediment load allocations to be detrimental to the development of the WIP. We also find lack of information on the specifics of the Bay model an obstacle for stakeholders and the public when providing comment on the TMDL and state WIP. We would ask that EPA revise ease its timetable through the remainder of the process to support the development a better product.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004. With regards to the WIP process, please refer to response to comment 0067.1.001.009 and section 8 of the TMDL report.

Comment ID 0384-cp.001.001

Author Name: Page T.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0389.1.001.011

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

B. EPA Delayed Any Decision With Respect To Upstream Reductions in Approving the LI Sound TMDL.

Not only did EPA not require the upstream states to participate in the LI Sound TMDL, it approved a rather unspecified process that might, but not necessarily result in, the delayed participation of the upstream states. The LI Sound TMDL approved by EPA delayed even consideration of any upstream reductions until a planned "TMDL revision scheduled for 2003," the intent of which was to "describe a framework for managing these upstream sources and a schedule for implementing Phase IV nitrogen reduction actions." LI Sound TMDL at 46; see also id. at 33 ("Because New York and Connecticut cannot enforce nitrogen reductions from point and atmospheric sources in other states ..., EPA will need to take the lead on future interstate WLNLA needs."). Indeed, as of the filing of these comments, studies with respect to upstream reductions are continuing, but no TMDL revisions have yet been issued. See, e.g., EPA, "Total Maximum Daily Loads at Work in Connecticut & New York: Restoring the Long Island Sound While Saving Money, Lessons in Innovation and Collaboration," at 4 (Dec. 2009) (discussion of efforts to better define nitrogen sources and loads in the Upper Connecticut River Basin).[FN11] Thus, as things stand today, the upstream states have been allowed a nine-year delay in participating in the LI Sound TMDL. By contrast, EPA is not affording New York any additional time here.

[FN11] Found at http://www.epa.gov/owow/tmdl/tmdlsatwork/pdti/long_island_technical.pdf.

Response

The process and procedures used in the Long island Sound TMDL are not relevant to the Chesapeake Bay TMDL. Each TMDL is unique to its watershed, stakeholders, sources and point in time during the establishment of that TMDL. In order for the Chesapeake Bay to meet water quality standards, EPA can not accept an “unspecified process that might, but not necessarily result in, the delayed participation of the upstream states” as the commenter proposes. EPA has been working with all jurisdictions to develop the Chesapeake Bay TMDL since 2005. EPA has provided NY adequate time. Please refer to response to comment 0267.1.001.006 with regards to why upstream States need to comply with the TMDL.

Comment ID 0389.1.001.019

Author Name: Iwanowicz Peter

Organization: New York State Department of Environmental Conservation

The TMDL Implementation Deadline is Unfair to NY

Despite the time differences on when each state entered the Bay restoration effort all states now have same 2025 deadline to complete implementation of the proposed TMDL. EPA requiring the same implementation deadline of all states unfairly gives the Bay states 40+yrs for implementation and the headwater states, like New York, only 25 years.

Response

Since the initiation of the Bay TMDL all of the watershed jurisdictions have been working to meet the same achievement dates. Please see the response to comment 0080-cp.001.002.

Comment ID 0390-cp.001.001

Author Name: Fultz Fred

Organization: Municipal Authority of the Township of Union, Pennsylvania

Will jurisdictions be given more time to adequately develop the final WIPS?

The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and

avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0405.001.001

Author Name: Lagowski Paul

Organization: BAE Systems

Will jurisdictions be given more time to adequately develop the final WIPs? The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0408-cp.001.005

Author Name: Koon Teresa

Organization: West Virginia Department of Environmental Protection and West Virginia Department Agriculture

Timeline - EPA did not honor deadlines to states yet held the states to strict and unworkable time frames. EPA did not deliver nutrient cap loads to states until July 1, 2010 and sediment allocations until August 13 2010, yet states were still required to submit draft WIPs by September 1, 2010. This did not allow adequate time to run scenarios through the model or to develop a sound implementation plan. In addition, in the haste to work with states to run scenarios, errors were often made by EPA causing additional delays for the states. Miscalculations and misunderstandings about how BMPs should be represented were an ongoing challenge between EPA and West Virginia that could have been avoided had more time been available. We are currently in the 9th hour without a successful scenario model run and have limited ability to modify our WIP.

Response

Please see the responses to comments 0067.1.001.020 and 0217.1.001.001.

Comment ID 0409.1.001.001

Author Name: Salada Ian

Organization: Penn State University

1. The TMDL lists backstop allocations imposed by EPA because the jurisdictions WIP did not provide sufficient assurance that programs would be implemented to achieve the necessary pollution load reductions. The jurisdictions have until November 29, 2010 to re-submit a WIP that meets EPA criteria. Based on this, the final TMDL (due to be issued December 31, 2010) may or may not be the backstop values or values set by the WIP. Therefore, we think that it is counterproductive to expect the public to comment on a TMDL by November 8, 2010 that may or may not be the indicated backstop values. A time extension for comments should be granted to give the public opportunity to comments on the final TMDL.

Response

During the public comment period, EPA provided for the public both the Backstop allocations if the State WIPs did not meet EPA's criteria and allocations if the WIP's were acceptable. Commenters had the opportunity comment on both sets of allocations. Please refer to Section 8 of the final TMDL for information regarding EPA's final evaluation of the WIPs. EPA has reconsidered its approach to backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final state WIPs and informative comments on the issue. The final TMDL places much greater emphasis on state WIPs and less emphasis on backstops in deriving the loading allocations for all sectors.

Comment ID 0411.1.001.010

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

Until the actual allocation are made the City can not provide comments on the full extent and breadth of the impact of the WIP on the City of Manassas.

Response

During the public comment period, EPA provided for the public both the Backstop allocations if the State WIPs did not meet EPA's criteria and allocations if the WIP's were acceptable. Commenters had the opportunity comment on both sets of allocations. Please refer to Section 8 of the final TMDL for information regarding EPA's final evaluation of the WIPs. EPA has reconsidered its

approach to backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final state WIPs and informative comments on the issue. The final TMDL places much greater emphasis on state WIPs and less emphasis on backstops in deriving the loading allocations for all sectors.

Comment ID 0412.1.001.001

Author Name: Lohr Matthew

Organization: Virginia Dept. of Agriculture and Consumer Services

The draft Chesapeake Bay TMDL that the U.S. Environmental Protection Agency (EPA) has presented for public comment covers an extremely complex and critical initiative that will have long-term implications for Virginia's environment, its agricultural and forest producers, its agribusinesses, its other industries, its state and local governments, and its citizens. Such an initiative deserves careful review, assessment, and explanation by all parties. However, this was not possible due to the time frames set forth to develop the TMDL and the Watershed Implementation Plans. Although the urgency of the restoration of the Chesapeake Bay is shared by all, careful consideration and additional research is needed. If the Chesapeake Bay TMDL will serve as a model for future watershed restorations, it is imperative that this process not be hastily attempted.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0414.1.001.004

Author Name: Myers George

Organization: Milton Regional Sewer Authority

Schedule Is Inadequate

There is not sufficient time in the schedule to consider public comment and then to revise the TMDL. EPA's schedule appears to be an effort to avoid significant consideration of public comment as much as to meet a court ordered deadline. The impact of the TMDL will be felt for decades and will cost billions of dollars. The schedule is not considerate of the weight of the issues presented in the EPA TMDL.

Due to the significant number of comments expected on EPA's controversial draft TMDL and the current schedule requiring the TMDL to be finalized by the end of the year, it would be impossible for EPA to seriously consider the comments submitted, thus making the public comment period a mere exercise to an EPA predetermined request (i.e., a sham). Additional time needs to be provided for EPA to be able to evaluate and respond to public comments. As EPA has done in numerous other instances, where a court-imposed deadline does not provide adequate time, additional time should be requested from the court. Only then can EPA seriously evaluate comments from the public.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0430-cp.001.001

Author Name: Owens James

Organization: Hampton Roads Association for Commercial Real Estate

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0431.1.001.007

Author Name: Tolbert James

Organization: City of Charlottesville, Virginia

It is obvious that the Chesapeake Bay TMDL modeling effort and TMDL development process has taken longer than anticipated. It is inappropriate to rush the details of such an important endeavor to meet the December 31, 2010 deadline. More time is needed to discuss the details of the Bay TMDL, understand the cost ramifications, evaluate funding options, and coordinate with Virginia on its WIP before this program is finalized. "We understand that the Draft TMDL is materially flawed as a technical matter. Serious computer modeling deficiencies have been documented."

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004. Please refer to response to comment 0379.1.001.006 regarding comments relevant to the model.

Comment ID 0432.1.001.003

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

The time frame used by DEP in the development and finalization of these standards has been longer than the arbitrarily accelerated period in which EPA has attempted to impose on Bay states in development of state WIPs. But the stakeholders in this process properly recognized that getting the final product done "right" was more important and more environmentally effective than completing the work under an artificial deadline.

The authoritarian manner that EPA has pursued so far to accomplish nutrient and sediment pollution reduction is counterproductive to the environmental goals that EPA wants to achieve. We in the regulated community also want to achieve these goals in as timely fashion as reasonably possible. And we recognize that in order to do so, there needs to be greater and more concentrated effort among stakeholders to develop and commit resources in implementing effective plans to improve water quality in the Bay. But these goals should not be achieved by economically decimating local communities and mass exodus of farm families from their farms.

Response

EPA considers the actions taken by PADEP, such as the promulgation of standards for erosion and sedimentation control and possible new standards for the application of manure, as some of the many activities needed to implement the TMDL. All sources of nutrient and sediment loads to the Bay must do their part in achieving load reductions to the Bay. EPA has evaluated each State's WIP and has reconsidered its approach to backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final state WIPs and informative comments on the issue. The final TMDL places much greater emphasis on state WIPs and less emphasis on backstops in deriving the loading allocations for all sectors. Please refer to Section 8 of the final TMDL for information regarding EPA's final evaluation of the WIPs.

Comment ID 0432.1.001.007

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

1. The period for development of Pennsylvania's WIP was drastically too short.

Recent actions and communications by EPA have strongly suggested that Bay states must develop WIPs that fully meet EPA's expectations by the Phase 2 deadline, or face immediate federal sanctions. Essentially, states were given a period of less than six months to devise Phase 1 WIPs, and are given until November 1 of next year to both "correct deficiencies" in the Phase 1 WIPs and devise a more detailed WIP that identifies pollution reduction activities and actions that each local area of the state will be performing.

Even with optimum knowledge, personnel and technical resources, completion of a viable and acceptable plan to

transform prevailing values and practices in pollution control within the area of the size of the Pennsylvania Bay watershed is a daunting task. So far, states have been provided far less positive and constructive support from EPA to complete this task within the time frame EPA established.

EPA's deadlines for completion of work by states have been extremely unreasonable and inflexible, and strongly discourage the type of interaction that is needed for development of plans that are both environmentally sound and workable and suitable to those individuals who may be affected. Unfortunately, EPA has viewed the finalization and implementation of WIPs as rigid and static. Yet changes in conditions, finances and technology may reasonably direct a state to make adjustments in plans. The process of development and implementation of activities under WIPs should be a dynamic and continuous one that allows states to make adjustments when pollution reduction can be achieved in a more efficient and less onerous way.

Response

Please see the responses to comments 0060.1.001.001, 062.1.001.004 and 0067.1.001.020. Please refer to Section 8 of the final TMDL regarding EPA's evaluation of the WIPs.

Comment ID 0432.1.001.020

Author Name: William Neilson John Bell and

Organization: Pennsylvania Farm Bureau

We have stated numerous times at public meetings held pursuant to Pennsylvania's WIP that the process of developing a workable and effective plan is a trial-and-error process. Basic common sense should cause EPA officials to realize it is hardly possible to develop a perfect and fully guaranteed plan to correct pollution ills of the Chesapeake within the timeframe EPA has imposed upon states in finalizing their WIPs. Sufficient time needs to be provided to analyze ideas that are proposed and to correct or provide more detailed information in response to perceived errors and deficiencies.

Response

EPA agrees with the commenter that the states can amend their future watershed implementation plans based on the experiences of previous WIPs and changing conditions of new technology and data.

Comment ID 0434.1.001.002

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

Moreover, the process established by EPA allows Virginia less than 3 weeks to review and address the comments it receives before submitting a revised WIP to EPA. Such an accelerated schedule is unfair, particularly because the full

record of EPA's decision-making has not been provided to the public for review and because EPA has conceded errors in the model that will not be addressed until after the public comment period closes.

Response

Please see the responses to comments 0060.1.001.001, 062.1.001.004 and 0067.1.001.020.

Comment ID 0434.1.001.011

Author Name: Pryor Wayne

Organization: Virginia Farm Bureau Federation

C. EPA Cannot Demand Development of an Implementation Plan Before a TMDL is Established.

Through this process, EPA has demanded that Virginia develop its WIP even before a final TMDL has been established. This does not make any sense. The TMDL process is designed to establish the necessary allocations between various sources. The implementation planning process then determines the actions - both regulatory and non-regulatory - needed to achieve those allocations. EPA's requirement that Virginia develop its WIP even before the TMDL has been established is backwards and undermines the adaptive management framework envisioned by Virginia and the regulatory framework.

EPA has signaled its support for adaptive management in the TMDL process, especially with respect to future course corrections in EPA's new "accountability" framework. However, EPA has not gone far enough to embed adaptive management principles into the TMDL allocations, assumptions or requirements for the Bay. Given the size and complexity of this TMDL, it is vital that EPA acknowledge the inherent limitations in its ability to predict with confidence the reductions that are needed to restore the Bay or the effect of EPA's proposed reductions on the Bay restoration goals.

Rather than fight over issues of precision now - a fight that tends to polarize positions and divide stakeholders who otherwise might agree to work together in a cooperative manner - EPA should take a phased and adaptive approach, first identifying the immediate, near-term reductions for which Virginia has already established a regulatory framework and for which there is general consensus, and then project future phases based on additional data collection and modeling refinements. The process EPA is requiring here is not a step-wise approach, but rather an amalgam of steps (TMDL development and implementation plan together) that will only lead to controversy and confusion.

Response

Please see the responses to comments 0067.1.001.020 and 0145.1.001.012.

Comment ID 0435.1.001.004

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

Insufficient Time

Public Comment Period Time Frame Comment:

Understanding this is a priority at the highest level of the Executive Branch, the EPA has established a self-imposed restricted timeline for both the TMDL and Phase I Watershed Implementation Plan (WIP) development process. The EPA has mandated that the Final TMDL will be issued by December 31, 2010. The EPA released the Draft TMDL on September 24, 2010 with public comments due to EPA no later than November 8, 2010. This 45-day public comment period is an inadequate amount of time for review of this sophisticated complex document.

Simultaneously, the Commonwealth of Virginia, required by the EPA, also released a Draft WIP, for EPA and the public to review; also due not later than November 8, 2010. The EPA then required the Commonwealth to revise the WIP to incorporate any comments from both the public and EPA and to submit a Final WIP to them no later than November 29, 2010.

Because of the compressed schedule, self-imposed by the EPA, the Commonwealth of Virginia will have only three weeks to incorporate public comments into the Final WIP. Furthermore, the EPA will have only seven weeks to address and incorporate public comments from seven jurisdictions.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0435.1.001.006

Author Name: Lentz Kristen

Organization: Department of Public Works, City of Norfolk, Virginia

The City recommends that the EPA modify the time line for the Final TMDL and WIP development to extend into May 2011. This additional time would allow for modifications to be made to the Bay Model and to allow for proper public comment review for both the TMDL and WIP.

A noted comment by the EPA on the Virginia WIP is lack of detail and commitment on program implementation. By extending the dead line for the Final TMDL and WIP into May 2011, it would allow the General Assembly for the Commonwealth of Virginia to begin approval of storm water legislation, providing the necessary commitment as outlined in the state WIP.

Response

Please see the responses for comments 0060.1.001.001, 0062.1.001.004 and 0067.1.001.020.

Comment ID 0436.1.001.005

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

At the Commission meeting on October 20, 2010, the HRPDC acted to endorse the following position and attached comments.

- The EPA has failed to provide the localities with a reasonable opportunity to review, evaluate, and comment on the basis for the proposed allocations.

Response

Please see the responses to comments 0060.1.001.001 and 0265.1.001.005.

Comment ID 0440.1.001.013

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

The schedule of deadlines under the Chesapeake Bay TMDL program appears arbitrary. Many policy decisions sought by EPA require legislative actions that can only be taken after the December 31, 2010 deadline for the Phase 1 TMDL to be issued. When developing its schedules and deadlines for certain tasks to be achieved, there appeared to be no consideration by EPA of each state's respective legislative or budgetary cycle. Another problem with EPA's schedule is that it has left little time for states to make thoughtful approaches in the development of nutrient credit exchange programs applicable to non point sources.

Response

EPA does not expect legislative actions or policy decisions affecting programs such as nutrient credit trading to occur prior to the establishment of the TMDL or the State WIPs. Please refer to section 8 of the final TMDL regarding EPA's response to State WIPs. Please see the response to comment 0062.1.001.004.

Comment ID 0440.1.001.015

Author Name: Land Larry

Organization: Virginia Association of Counties (VACo)

6.) Phase 2 TMDL - not nearly enough time provided when considering the complexity of the task.

The March 10 issue of the Chesapeake Bay Journal had this description of the Phase II WIP process:

"(The Phase II WIP) will set nutrient and sediment goals to more local levels, probably counties. The goal is to make the nutrient and sediment goals more "real" for local governments, agencies and conservation districts that will actually need to take most of the actions. The local allocations are also intended to improve accountability, and the ability to track nutrient and sediment control actions."

VACo has already expressed many concerns over the time frame for developing and issuing the Chesapeake Bay TMDL. A deadline of November 1, 2011 for states to submit to EPA the locality-specific Phase II WIP is highly unrealistic.

Recommendation: VACo's first preference is that the November 1, 2011, deadline be extended. If extension of the deadline is not an option, EPA needs to be extremely flexible in its enforcement of the deadline for states to submit the Phase II WIP. Over the past year, many local governments have reduced their staffs due to serious revenue shortfalls.

Response

Please see the response to comment 0327.1.001.006.

Comment ID 0442.1.001.004

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

3. EPA and States Must Address Time Constraints

EPA and the states have set several deadlines for the implementation of practices to achieve TMDL allocations without consulting with local governments (60 percent of all needed implementation by 2017 -- or 70 percent in the case of Maryland -- and 100 percent of implementation by 2025 - or by 2020 in Maryland.) These deadlines do not take into account the amount of time local governments will need to put into place the level of practices that the TMDLs/WIPs propose. Local governments will need to develop local implementation plans, determine budget needs, pass new ordinances, and potentially raise new funds before they can even begin to design and build new projects. Design and construction schedules also will be subject to various scheduling constraints.

Recommendation #3: Do Not Mandate Specific Retrofit Levels in the TMDL or the Phase I WIPs

Neither the TMDL nor the state Phase I WIP documents should include reference to a specific level of stormwater retrofit for either MS4 or non-MS4 urban areas. (See recommendation #7 for more detail.)

Response

Please see the responses to comments 0265.1.001.005 and 0265.1.001.017.

Comment ID 0442.1.001.006

Author Name: Drzyzgula Cathy

Organization: Metropolitan Washington Council of Governments (COG)

5. EPA Should Change the Deadline for Completion of Phase II WIPs

Although EPA's current schedule calls for states to develop and submit Phase II WIPs by June 1, 2011, most local governments have barely begun to assess implementation options because the draft Phase I WIPs only allocate to the state or major basin level and it is not clear what practices or levels of reduction will be needed at the local level. It is also uncertain the degree to which such sub-allocations will be deemed 'enforceable' (ref. recent EPA presentation to PSC), and hence what level of controls are mandated. Planning has also been held up by delays in providing final load estimates from the Bay Program's Watershed Model (WSM) (ref. Section 5.8 Phase 5 Chesapeake Bay WSM). There also needs to be sufficient time to address the inconsistencies between the TMDL and Phase I WIP assumptions.

The Anne Arundel County Pilot WIP has demonstrated the complexities of assigning allocations and hence responsibility and defining accountability when there is a complex mix of federal, state, local and private entities. When this is coupled with uncertainties about the availability of the WSM to define local loads, it is unrealistic to expect credible Phase II WIPs to be prepared by the current June 1, 2011 due date. Further, the states will be facing a significant challenge in the critical task of effectively engaging local stakeholders who will be affected by the Phase II WIPs. This, too, will be problematic given the current timeline. (ref. Section 7. Reasonable Assurance & Accountability Framework, Section 10. TMDL Implementation & Adaptive Management & 10.3 Future Modifications to the Chesapeake Bay TMDL).

Example:

COG itself, as well as its member governments, has access to Phase 5.3 WSM output to assist in planning efforts. However, this output is of limited value given the reality that urban land use and load estimates will change, probably significantly, once the Bay Program completes its WSM upgrade. EPA originally promised that final watershed model data for use in the TMDLs would be available in late 2009; the latest information from EPA staff is that the new version of the WSM will not be available until sometime in early 2011.

Recommendation #5: Extension of the Phase II WIP Due Date

We request that the due date for the draft Phase II WIPs be changed to December 30, 2011, and the due date for the final Phase II WIP be changed to June 30, 2012. Doing so would allow time for stakeholders to become familiar with the revised watershed model and for the various parties to complete the studies of cost effectiveness, cost feasibility and physical feasibility that we are recommending. In the meantime, local government implementation actions, such as construction of enhanced nutrient removal facilities at wastewater plants, would continue. This expanded time frame will also allow for greater public participation at the local level which will be particularly important with the more localized load reduction targets.

Response

Please see the response to comment 0327.1.001.006.

Comment ID 0443.2.001.008

Author Name: Moore Shannon

Organization: Frederick County Government

The County provides the following comments on the Executive Summary of the TMDL: p. 9: "The jurisdictions are encouraged to revise and strengthen their draft Phase I WIPs before final versions are due November 29 to meet the basin-state pollution allocations and provide reasonable assurance the allocations will be achieved."

- This allows the municipalities no time to comment on changes made to the MD WIP after the public comment period ends on November 8 and before it is submitted to EPA with MDE's changes November 29. This would seem to violate rules for public review.

Response

Please see the response to comments 0062.1.001.004 and 0067.1.001.020.

Comment ID 0443.2.001.012

Author Name: Moore Shannon

Organization: Frederick County Government

Frederick County also echoes the concerns of the Maryland Association of Counties on the following points: • Extension of Phase II Watershed Implementation Plan (WIP) Deadlines

Response

Please see the response to comment 0327.1.001.006.

Comment ID 0444.1.001.010

Author Name: Allen Paul

Organization: Constellation Energy

Although Constellation strongly supports efforts to improve water quality in the Chesapeake as well as the concept of a regional TMDL for the Bay, we are concerned that in various respects the Draft TMDL has exceeded the jurisdictional

bounds of the CWA as written. Such overstepping may compromise smooth progress toward a final TMDL that facilitates actual Bay restoration, a goal that all stakeholders desire.. For the reasons set forth above, it is respectfully suggested that EPA withdraw the Draft TMDL to allow sufficient time for the model updates to be completed. EPA should then solicit public comment on the model (complete with all supporting documentation) while providing enough time for stakeholders to perform thoughtful and insightful analysis on the data. In the interim, EPA should work with the states to continue their water quality improvement efforts. Once the model is updated and reviewed, its accuracy being then most assured, EPA should work with the states and District of Columbia to set TMDL's within the current legal bounds and regulatory framework of the CWA or otherwise seek legislative changes to secure proper legal authority to enact all aspects of the current Draft TMDL.

Response

Please see responses to comments 0060.1.001.001 and 0062.1.001.004. With regards to the model, please refer to 0379.1.001.006.

Comment ID 0458-cp.001.001

Author Name: Cooper Michael

Organization: Brandywine Realty Trust

We strongly believe that the EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

1)The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0465.1.001.001

Author Name: Marks Martha

Organization: NAIOP (Commercial Real Estate Development Association) Northern Virginia Chapter

We strongly believe that the EPA should delay adoption of the TMDL and backstops for at least one year, extending the deadline until no sooner than December 31, 2011

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0465.1.001.002

Author Name: Marks Martha

Organization: NAIOP (Commercial Real Estate Development Association) Northern Virginia Chapter

- Unreasonable timeline and rushed process do not make good policy.

The EPA is proposing major policy and regulations that impact a substantial swath of the mid Atlantic states. Decisions of this magnitude must be done properly. The process that EPA has used for the TMDL has simply been too rushed for something of this importance and enormity. From the beginning, unreasonable deadlines were set and inadequate opportunity was provided for public comment from property owners, industry and government. If approved, the implementation schedule for the changes proposed by EPA does not establish a reasonable adoption process. And, most importantly, the EPA has mandated a federal program which will result in billions of dollars in costs being imposed upon Virginia residents, businesses and local and state governments. Adding insult to injury, the EPA is expecting the citizens of the Commonwealth of Virginia to bear the burden of the costs of the outcome of a lawsuit that was brought against the EPA.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0471.1.001.002

Author Name: Greenfield Elizabeth

Organization: Richmond Association of Realtors (RAR)

On behalf of the 4,700 members of the Richmond Association of REALTORS (RAR), I am submitting comments regarding the proposed rule issued by the Environmental Protection Agency (EPA) on establishing a Total Maximum Daily Load (TMDL) for states in the Chesapeake Bay Watershed.

However, RAR has serious reservations about some of the proposals and their benefits as opposed to the costs they will impose on homeowners as well as state and local governments. RAR urges the EPA to delay implementation of the TMDL and backstops for at least one year.

Response

Please see the response to comments 0062.1.001.004. Please refer to section 8 of the final TMDL regarding EPA's decision on backstops.

Comment ID 0478-cp.001.001

Author Name: Fleury Thomas

Organization: Cityline Partners

We respectfully request that you delay any action on adoption and implementation of TMLD measures for the Chesapeake Bay until 12/31/13 based on the following rationale:

1) This process is moving too fast for a meaningful dialog, and taking on the appearance of a "rail road " job. More time is needed.

Response

Please see the response to comments 0062.1.001.004.

Comment ID 0478-cp.001.004

Author Name: Fleury Thomas

Organization: Cityline Partners

We respectfully request that you delay any action on adoption and implementation of TMLD measures for the Chesapeake Bay until 12/31/13 based on the following rationale:

4) No one has looked at lower cost alternatives such as rain gardens and porous paving. The new Tysons Master Plan shows multiple mitigation measures that accomplish detention and water quality features in its 20 year plan for almost 45 million sq ft of new development that hasnt even been considered through this fast track process.

Response

Please see the response to comments 0062.1.001.004. The states can propose the measures mentioned in your comments in their WIPs.

Comment ID 0478-cp.001.006

Author Name: Fleury Thomas

Organization: Cityline Partners

Please delay adoption and implementation for the sake of smarter and more effective dialog with the most economically effected parties

Response

EPA anticipates that TMDL will be the start of many conversations with all the stakeholders to successfully implement the nutrient reduction goals. Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0480.1.001.003

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

This failure to meet the 2010 restoration goals was acknowledged again in 2008 at the annual Council meeting, when EPA revealed that the current restoration pace would not meet the nitrogen goals until 2034 and the phosphorus goals until 2050. In June 2008, the Principals' Staff Committee of the Chesapeake Bay Program formally requested that EPA accelerate the Bay TMDL so it takes effect no later than December 31, 2010 - not May 1, 2011.[FN 10] EPA agreed to the request from its partners and pledged to finalize the Bay TMDL by the end of 2010.

[FN 10] PSC Meeting minutes June 18-19, 2008

Response

EPA is committed to the December 31, 2010 deadline mentioned by the commenter.

Comment ID 0480.1.001.007

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

The May 12, 2009 Executive Order

On May 12, 2009, President Obama issued an Executive Order 13508 [FN 14] concerning restoration and protection of the Chesapeake Bay. The Order directed seven agencies of the federal government to develop recommendations for restoring the Chesapeake Bay. With oversight from the EPA Administrator, those agencies were to develop a final strategy for Bay restoration and protection. On May 12, 2010, such a strategy was issued. One of the goals of the strategy was for EPA to develop a Bay wide TMDL by December 2010 with full implementation by 2025.[FN 15] The proposed TMDL, and its finalization by December 31, 2010, will implement this important goal of the Executive Order

and restoration strategy.

[FN 14] <http://executiveorder.chesapeakebay.net/page/About-the-Executive-Order.aspx>

[FN 15] Strategy for Protecting and Restoring the Chesapeake Bay Watershed, May 12, 2010, p. 24.
<http://executiveorder.chesapeakebay.net/file.axd?file=2010%2f5%2fChesapeake+EO+Strategy%20.pdf> .

Response

EPA is committed to the December 31, 2010 deadline mentioned by the commenter.

Comment ID 0480.1.001.013

Author Name: Falk Hilary

Organization: Choose Clean Water Coalition

Some might argue that EPA should wait to establish the Bay TMDL until all the WIPs are done, new agricultural information has been completed for the model (such as accounting for voluntary practices), etc. We emphatically disagree that EPA should delay in establishing the TMDL. This essential legal framework must be established now. As comparison of the 2003 allocations and 2010 draft TMDL has shown, the basic information is well known. Changes in the TMDL allocations which may be envisioned will only be marginal. Bay cleanup will only get harder and more expensive with delays.

Response

EPA is committed to the development of the TMDL by December 21, 2010.

Comment ID 0510.1.001.005

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

EPA has failed to provide meaningful public review of the Draft TMDL. The Draft TMDL does not provide the public with information on the assumptions that have been made in the modeled scenarios that led to the TMDL allocations. Thus, EPA has not provided sufficient information for the public to provide meaningful comments under either the Administrative Procedures Act (APA) or the CWA. By not releasing this information, EPA also has made it difficult for policy-makers and the public to understand to what extent the Draft TMDL will have substantial and widespread economic and social impact, foreclosing a meaningful dialogue about the costs, benefits, and trade-offs among various policy choices.

Response

Please see the response to comment 0060.1.001.001.

Comment ID 0510.1.001.009

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

By turning the TMDL program on its head and requiring implementation plans before the TMDL is issued, EPA is using that information to incorporate implementation measures into the Draft TMDL, even though implementation measures are not lawfully part of a TMDL. Thus, the TMDL that EPA made available for review on September 24, 2010, consists not only of wasteload and load allocations, but also consists of detailed implementation instructions directed at the watershed jurisdictions.

Response

Please refer to response to comment 0067.1.001.009 and Section 8 of the TMDL regarding EPA's evaluation of the WIPs.

Comment ID 0513.1.001.002

Author Name: Hoot Lynne

Organization: Maryland Grain Producers Association (MGPA)

The task is overwhelming for EPA, the states, the local jurisdictions and the many sectors that will be required to make significant changes to their current operations. The allocations that make up the Draft TMDL are based on the 5.3 version of the Chesapeake Bay watershed model that has only been functional since June 2010. Parts of this model update were made available for public review on June 2, 2010. The target loadings for phosphorus and sediment were provided to the states on July 1, 2010. The target loadings for sediment were made available to watershed jurisdictions on August 13, 2010. EPA then demanded that watershed jurisdictions submit implementation plans based on these inaccurate loadings by September 1, 2010, allowing 62 days to develop plans for nutrients and only 19 days to develop plans for sediments, to implement what EPA acknowledges is the largest and most complex TMDL ever attempted. The timetable provided to the states is absurd.

Response

Regarding comments directed at the TMDL schedule, please see the response to comments 0067.1.001.020 and 0062.1.001.004. Regarding comments directed at the TMDL models, please see the response to comments 0379.1.001.006.

Comment ID 0513.1.001.008

Author Name: Hoot Lynne

Organization: Maryland Grain Producers Association (MGPA)

If the goals of EPA is to clean up the Chesapeake Bay, we believe that your potential to succeed will improve if the process is slowed and states are given more time to produce meaningful programs with input from all impacted sectors.

Response

EPA and the states have been working to address the water quality impairment on the Chesapeake Bay since the mid 1980s. Some of the programs were successful in reducing the nitrogen and phosphorous loading to the Chesapeake Bay non enable the Bay to meet water quality standards. EPA has been working with the states since 2005 on the development of the TMDL in a transparent and methodical manner. Please see responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0515.1.001.012

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

B. A TMDL Based On Incomplete or Inaccurate Modeling Will Lead to an Inefficient Planning Process

Because, as discussed above, the CBWM is not finalized, contains errors, and does not correctly reflect all aspects of Bay watershed, there is no sound basis to finalize the TMDL. Our October 29, 2010 letter (on-line Comment Docket Comment Attachment #145.1) pointed-out that the EPA intends to revise its CBWM in 2011. See also, the June 11, 2010 Garvin letter attached thereto. Given the EPA's intention to make near-term changes in the CBWM, with the likelihood that TMDL amendments will result, attempting to plan steps to implement the TMDL within the Bay jurisdictions is akin to "aiming at a moving target". A "start-stop-redirect- restart" approach is not an effective planning methodology: such an approach would encourage affected entities to "sit tight" until "the dust settles". The "Carpenter's Maxim" ("measure twice, cut once") should inform the EPA's course of action. Accordingly, promulgation of a final TMDL should be deferred until after all the necessary model corrections and refinements planned for 2011 are made. As discussed in Section III of our October 29, 2010 letter (on-line Comment Docket Comment Attachment #145.1), the EPA has retained unto itself full authority to take sufficient time to develop and finalize the TMDL, and it can renegotiate settlement agreements and consent orders in light of the enormity of the task and the number of corrections, revisions, and improvements that should be made as reflected by the many comments. In the interests of finalizing the best TMDL possible, the EPA should not rush merely to meet an arbitrary deadline.

Response

The Bay TMDL is based on the best modeling and science we have available. EPA has been collaborating with the Bay jurisdictions since 2005 on the development of the TMDL. For more information on the models, please refer to response to comment 0379.1.001.006. The TMDL will be developed by December 31, 2010. Please see comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0515.1.001.026

Author Name: Crumb Edward

Organization: Binghamton-Johnson City Joint Sewage Board

F. Take Adequate Time for the TMDL Process

To afford adequate time for the TMDL process and the correction/updating of the CBWM before the TMDL is finalized, the EPA should renegotiate consent orders and settlement agreements so that EPA has adequate time to follow the "Carpenter's Maxim" and pursue a "measure twice, cut once" approach. In this way, Bay watershed jurisdictions and local entities would not be faced with a repetitive and inefficient start-stop-redirect-restart planning process. Having the "end goal" clearly and firmly established before the TMDL is finalized best serves to promote efficiency and, as a result, the potential for success of the TMDL and overall effectiveness of the Bay restoration process.

Response

The TMDL was developed using the best science, modeling tools and data to date and represents the "end goal". Please see responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0516-cp.001.001

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

The attached statement developed and supported by a broad consortium of 57 Senior Chesapeake Bay scientists, policy makers, and Bay advocates urges the EPA to stay on target for the end of the year deadline or the completion of TMDLs and for state submissions of finalized Phase I WIPs by November 29, 2010. The state's should be required to submit comprehensive WIPs that fully meet the requirement for reasonable assurances that the TMDLs will be met in a timely fashion and the EPA's preliminary review of these draft WIPs has found that do not.

Response

EPA is committed to completing the TMDL by December 31, 2010. Please refer to Section 8 of the final TMDL for more

information regarding the States' WIPs.

Comment ID 0516.1.001.005

Author Name: Winegrad Gerald

Organization: Senior Bay Scientists and Policy Makers for the Bay

We fully support the EPA TMDL deadline of the end of this year and urge that there be no postponement.

Despite protestations by the affected states, these jurisdictions have repeatedly failed by wide margins to achieve the agreed upon nutrient and sediment reductions from agriculture and from existing and new development. This is due to a failure to adopt the necessary measures to accomplish these reductions. While we fully support increased federal funding for direct, verifiable reductions from nonpoint sources, we are more convinced than ever that the current mostly voluntary approach to agricultural pollutants, especially animal waste, has not and will not succeed without mandatory, enforceable regulations. At best, the farm sector has only achieved one-half of their agreed upon nutrient and sediment reductions after 27 years of funding enhancements. Further, pollutants flowing from developed lands are the only major pollution source that had been increasing, not decreasing, and it is clear that the states are not doing all that is necessary to control development and increased impervious surfaces, and to retrofit existing developed areas for better stormwater control as called for in the Tributary Strategies.

Response

EPA is committed to completing the TMDL by December 31, 2010.

Comment ID 0518.1.001.004

Author Name: DuVal Barry

Organization: Virginia Chamber of Commerce (VCC)

Finalizing the TMDL before finalizing the modeling makes no sense.

The Virginia Chamber of Commerce is also very disturbed by the short 45 days for the public to provide comments on the TMDL. Given the complex nature of the TMDL, and the quantified significant costs to all involved, such a limited public comment period is inadequate and should be immediately extended.

Response

Please see the response to comment 0060.1.001.001.

Comment ID 0519.1.001.011

Author Name: Gibb G.

Organization: Northern Virginia Regional Commission (NVRC)

Deadline for Completion of Phase II WIPs

The local Watershed Implementation Plan Pilot Projects funded by the USEPA have demonstrated the many complexities of assigning local nutrient and sediment allocations. [FN7] This is especially true when there is a complex mix of federal, state, local and private entities whom will be affected by the Phase II WIPs. Funded research has indicated that a significant amount of time and effort is necessary to understand, communicate and coordinate the many technical and policy related issues. Given the current uncertainties about the availability of the WSM to define local loads at the local level, it is impracticable to expect realistic Phase II WIPs to be prepared by the current due date of June 1, 2011.[FN8]

The Northern Virginia Regional Commission staff urges the USEPA to extend the due date for the draft Phase II WIPs and for the final Phase II WIP for a period of one year each, respectively. Additionally, as this process proceeds into the development of those Phase II WIPs, both federal and state agencies need to coordinate more effectively with those local governments and utilities that will bear much of the burden of the implementation measures to fully understand the implications to the taxpayers and ratepayers.

[FN7] <http://archive.chesapeakebay.net/calendar.cfm?EventDetails=1103S&DefaultView=all&RequestDate=10/06/2010>

[FN8] Section 7. Reasonable Assurance & Accountability Framework, Section 10. TMDL Implementation & Adaptive Management & 10.3 Future Modifications to the Chesapeake Bay TMDL

Response

Please see the response to comment 0327.1.001.006.

Comment ID 0531.1.001.001

Author Name: Abraham Phillip

Organization: Virginia Association for Commercial Real Estate (VACRE)

The members of VACRE recognize the Chesapeake Bay is a national treasure. We support the goal of establishing a pollution diet for the Chesapeake Bay that would be achieved over a fixed period of years by equitably requiring reductions across all sectors producing pollutants throughout the Bay watershed through implementation of a variety of best management practices. We are committed to working with state and local officials, farmers, homeowners, the environmental community and the business community to equitably and cost-effectively achieve this goal through adoption and implementation of Virginia's Watershed Implementation Plan (WIP) for achieving this goal. We strongly

oppose, however, the timetable and process EPA has utilized to develop and proposes to implement the draft TMDL it released in September 2010 as well as the substance of the backstops it released at that time.

Response

Please see responses to comments 0060.1.001.001 and 0062.1.001.004. Please refer to Section 8 of the TMDL report regarding EPA's decision concerning backstops.

Comment ID 0531.1.001.002

Author Name: Abraham Phillip

Organization: Virginia Association for Commercial Real Estate (VACRE)

The members of VACRE wholeheartedly endorse the concerns previously raised with EPA by Virginia Governor Bob McDonnell over the Chesapeake Bay TMDL in his June 15, 2010 letter to EPA Administrator Lisa Jackson. We share the concerns also addressed by Virginia Secretary of Natural Resources Doug Domenech in his September 3, 2010 cover letter to EPA Region 3 Administrator Shawn Garvin submitting Virginia's draft WIP. Governor McDonnell correctly objects to the "short timeframes and opportunities for public comment by the very citizens and affected constituencies who will be responsible for reducing nutrient and sediment pollutants into the Bay" and properly calls for "sound science supporting the requirements being imposed on the states."

Response

The TMDL is based on the strongest modeling and science available. Virginia has been collaborating with EPA and the other Bay jurisdictions on the TMDL since 2005 and with EPA and the bay states since the mid 1980s. Please see comments 0060.1.001.001 and 0062.1.001.004 regarding the public comment period.

Comment ID 0531.1.001.005

Author Name: Abraham Phillip

Organization: Virginia Association for Commercial Real Estate (VACRE)

VACRE urges EPA to delay adoption of the TMDL and any decision to impose backstops on the states for at least one year and until no sooner than December 31, 2011. We ask for this for the following four reasons:

First, as emphasized by Governor McDonnell and Secretary Domenech, the regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party. Allowing

a reasonable period of time for comments on and adoption of the TMDL and the resulting state WIP, would not prevent adoption of the kind of program envisioned by EPA. It will only make both the TMDL and WIP better, more cost-effective and greatly increase their chances of success over the time period envisioned.

Response

The Chesapeake Bay TMDL has been developed through a highly transparent, inclusive and engaging process with both the states and stakeholders during the past two years. EPA has worked side-by-side with its state and District of Columbia partners in developing the TMDL. EPA has also provided extensive hands-on assistance to the states and the District in the development of their Watershed Implementation Plans.

Through the Chesapeake Bay Program committees, principally the Water Quality Goal Implementation Committee (WQGIT), EPA has closely worked with the jurisdictions on all aspects of the TMDL. A list of meetings of the WQGIT and other meetings involving EPA and the states and D.C. are included as an appendix to this report.

Officials and staff have been in regular discussion throughout the process, including in hundreds of conference calls and meetings. Since September 2005, the seven jurisdictions have been actively involved in decision-making to develop the TMDL. In the October 2007 meeting of the Chesapeake Bay Program's Principal's Staff Committee, the jurisdictions and EPA agreed that EPA would establish the TMDL. Since 2008, EPA has sent official letters to the jurisdictions detailing all facets of the TMDL. Section 1.3 of the Draft Bay TMDL provides additional information on the joint work of EPA and the jurisdictions.

EPA's outreach effort to Bay stakeholders has been extraordinary, including hundreds of meetings with interested groups; two extensive rounds of public meetings, stakeholder sessions and media interviews in all seven jurisdictions in the fall of 2009 and the fall of 2010; a dedicated EPA website; a series of monthly interactive webinars accessed by more than 2,500 people; three notices published in the Federal Register; and a close working relationship with Chesapeake Bay Program committees representing citizens, local governments and the scientific community.

During the formal public comment period in the fall of 2010, EPA conducted 18 public meetings in all seven jurisdictions. More than 2,700 people participated in the public meetings and seven of the meetings were broadcast live online via webinar. As EPA officials traveled throughout the watershed for the public meetings, they also met separately with many stakeholder groups, including local governments, agriculture groups, homebuilder and developer associations, wastewater industry representatives and environmental organizations to clarify the TMDL and its process and address questions. EPA also had special meetings with state environment secretaries and their department staff and other state officials and elected representatives.

Since 2008, EPA staff has participated in nearly 400 meetings on the Bay TMDL attended by stakeholders.

Please see the response to comments 0060.1.001.001 and 0062.1.001.004

Comment ID 0541.1.001.004

Author Name: Knapp Leslie

Organization: Maryland Association of Counties (MACo)

Extension of Phase II Watershed Implementation Plan (WIP) Deadlines: The June 1, 2011 deadline for the draft Phase II WIP and November 1, 2011 deadline for the final Phase II WIP are not feasible. It has been difficult to complete a viable Phase I WIP in the short deadline provided, especially given the limited understanding of local expectations. The amount of work for Phase II, which will be the most critical and detailed of the three WIPs, is enormous.

Additionally, states and counties will be digesting updated allocation numbers that EPA will be releasing in the interim. Recognizing the significant practical challenges of creating a useful and accurate plan in the time provided, the State of Maryland has requested an extension of the deadline and MACo concurs. If the current deadline is kept, the final product will be inferior and fail to meet its required goals.

Response

Please see the response to comment 0327.1.001.006.

Comment ID 0548.1.001.007

Author Name: Smith Brooks

Organization: Utility Water Act Group

b. Even assuming, for the sake of argument, that implementation planning were a part of the federal TMDL program, states cannot be expected to develop implementation plans until after the TMDL is established.

In the Chesapeake Bay context, EPA has mandated that states submit their WIPs even before EPA released the draft TMDL. This does not make any sense. Even worse, it will have a profound adverse impact on regulated point sources, like electric utilities, who may face premature permitting and business consequences from regulatory actions that are not appropriately informed by the comprehensive and systematic TMDL process.

By definition, until the TMDL is in place and final, states will not know the relative impact of different sources and/or causes of impairment. Nor will they know the specific reductions needed to achieve the loading cap. How can states meaningfully allocate and subdivide loadings among sources when they do not know what those loadings will be or the relative gravity of contributions from different sources?

In prior rulemakings, EPA has grappled with the implementation planning concept. In 2000, for example, EPA added implementation plans as an approvable element of TMDLs. However, as noted above, EPA's 2000 rule revisions never took effect. After abandoning the 2000 rule revisions, EPA embarked on significant additional public outreach. Based on this outreach, EPA concluded that implementation planning is best done outside of the TMDL process.

EPA believes that relying on the continuing planning process (CPP) developed pursuant to 303(e) of the CWA, and integrating the watershed approach into on-going State planning processes, can help assure that TMDLs will result in water quality improvements.

EPA believes that there are many advantages in providing for implementation planning outside of the TMDL process. First, the CWA authorizes use of the CPP as the mechanism for implementing TMDLs. Section 303(e)(3) requires each State and territory to have an approved CPP that will result in "plans" for all navigable waters in the State.... Moving implementation planning outside of the TMDL approval process may also expedite TMDL review and approval.... Finally, EPA believes that moving implementation planning outside of the TMDL approval process is a more effective way to ensure the development of realistic plans to achieve water quality standards. By allowing a jurisdiction to accomplish implementation planning after a TMDL has been established or approved, the jurisdiction has a greater opportunity to work with all stakeholders in the watershed to develop a coordinated implementation plan. This greater opportunity for public input in the planning process increases the probability that local controls will actually be adopted and pollutant reductions achieved.[FN 19]

UWAG strongly supports implementation planning under Section 303(e) after a TMDL is established under Section 303(d). Interestingly, the only Bay state with a detailed implementation planning requirement under state law - Virginia - has consistently interpreted that requirement to apply after a TMDL is in place. See, e.g., Guidance Manual for Total Maximum Daily Load Implementation Plans (July 2003), at p. 1 ("An IP is prepared at some point following development of the TMDL, and approval by EPA."). In fact, none of the 37 implementation plans finalized to date in Virginia arose until after the underlying TMDLs had been adopted by the State Water Control Board and approved by EPA.

[FN 19] EPA Watershed Rule at pp. 26-29 (emphasis added).

Response

Please see the response to comments 0137.1.001.004, 0145.1.001.012 and 0153.001.003 for more information on the process and timetable used to develop the TMDLs and WIPs.

Comment ID 0551-cp.001.001

Author Name: Horton William

Organization: Hurt & Poffitt, Inc.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states involved. It is wrong for the EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0555.1.001.001

Author Name: Shadowen H.

Organization: Brandywine Realty Trust

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0571.1.001.010

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

b. Finalizing the TMDL Prior to Finalizing the Modeling Makes No Sense. EPA's stated plan is to produce a final TMDL by the end of 2010. To meet this deadline, the affected states must submit their final Phase I WIPs by Nov. 29 to EPA, which then approve or modify the state WIPs with backstop allocations as it thinks best. EPA, however, admits that the latest updates to the computer modeling, which were used to set the pollutant loading targets for both the TMDL and the WIPs, have proven to be unreliable. Therefore, the pollutant loadings that will be part of the "final" TMDL approved by Dec. 31 are to be considered "provisional." If necessary, after fixing the computer modeling, EPA will reopen the TMDL in 2011 to finalize the state loadings allocations for pollutants.

Any TMDL, especially one which will have such a significant impact on the states covered by the rule, should never be allowed to become final when it is known to have deficiencies. EPA's cavalier attitude about the costs and impacts of a rule known to be defective from the beginning does not do credit to the agency. NAHB urges EPA to fix the modeling and publish it for public review and comment before finalizing the TMDL.

Response

With regards to comments concerning the model, please refer to response to comment 0379.1.001.006 and 0238-cp.001.002.

Comment ID 0573-cp.001.003

Author Name: Tabb B.

Organization:

At the meeting we were told we were Good neighbors so far...and we had done a good job of reducing N in the water. Yet the EPA says they have little confidence in our WIP.

We have asked for more time to submit our WIP but the EPA refuses to extend for a plan that will affect farming for the next 15 years.

Response

Please see responses to comment 0062.1.001.004 0327.1.001.006. With regards to WV's WIP, please refer to Section 8 of the TMDL.

Comment ID 0587.1.001.005

Author Name: Watts George

Organization: U.S. Poultry & Egg Association, National Turkey Federation (NTF), and National Chicken Council (NCC)

3. WIP Implementation (Examples of Specific State Concerns)

The approach that EPA has taken with the development of the Chesapeake Bay TMDL includes the requirement for the jurisdictions to develop TMDL implementation plans prior to the finalization of the TMDL. As the target loadings were not provided to the jurisdictions until July 1, 2010 (nutrients) and August 13, 2010 (sediment) the jurisdictions had a very short window of time to develop the WIPs by EPA's September 1st due date. EPA then incorporated implementation measures addressed in the state WIPs into the Draft TMDL. Consequently, the Draft TMDL consists not only of wasteload and load allocations, but detailed implementation measures identified by the jurisdictions. It is unclear if the data from the WIPs are the baseline data for incorporation into the TMDL or if they are intended for use in determining how the TMDL allocations will be met. It is unclear how these WIPs can serve both purposes which is what how it appears EPA is using them.

The WIPs and associated implementation measures are not lawfully part of the TMDL. Under current law, a TMDL is the sum of the wasteload and load allocations necessary to meet water quality standards [40 C.F.R. 130.2(i)]. Implementation plans are not part of the TMDL and are not subject to EPA approval. Section 303(d)(2) of the CWA

requires states to incorporate approved TMDLs into the water quality management plans that the states maintain under section 303(e). This framework is carried through in EPA's existing TMDL regulations as well as its 1997 guidance document on TMDL implementation.

EPA's process has resulted in such an interconnected relationship between the TMDL and implementation plans (even before the TMDL is finalized) that is unclear how updates or modifications to either the final TMDL or WIPs will impact one another. Of particular concern is that the WIPs are being developed based on incomplete and inaccurate data and assumptions from EPA's modeling efforts.

Response

Please refer to Section 8 of the TMDL for more information regarding the State WIPs.

Comment ID 0591.1.001.006

Author Name: Shields M.

Organization:

It is also convenient for the EPA to claim the December 31, 2010 date is a specific commitment in the Executive Order 13508 Strategy issued in May 2010. In addition, the settlement agreement between EPA and the Chesapeake Bay Foundation requires EPA to issue the final TMDL by December 31, 2010. This all adds up to forced legislation onto the people.

Response

Please refer to response to comment 0062.1.001.004.

Comment ID 0601-cp.001.001

Author Name: Greenfield Elizabeth

Organization: Richmond Association of Realtors (RAR)

On behalf of the 4,700 members of the Richmond Association of Realtors®, we are formally submitting comments on the implementation of the TMDL. The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process the EPA has used for the TMDL has been too rushed. The EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it

settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0603-cp.001.001

Author Name: Kerr Bob

Organization: Kerr Environmental Services Corp.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0604.1.001.007

Author Name: Missimer Carroll

Organization: P. H. Glatfelter Company

Additional Comments

US EPA has established an unrealistically short time line to review the comments from the many parties affected by this proposed TMDL and prepare a final TMDL. Improvements to the Chesapeake Bay will undoubtedly cost the people and businesses living in the watershed billions of dollars. Therefore, it is critical that US EPA not rush the process of determining the most cost effective solutions.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0327.1.001.006.

Comment ID 0609.1.001.006

Author Name: Aubertine Darrel

Organization: Senate of the State of New York

Given the current economic climate and the considerable fiscal challenges that farmers, municipalities and taxpayers are enduring, there could not be a worse possible time to implement this TMDL - particularly when the waste load allocations are unattainable. Therefore, I urge the EPA to withdraw this proposed TMDL.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0327.1.001.006.

Comment ID 0611.1.001.004

Author Name: Knapp Leslie

Organization: Maryland Association of Counties (MACo)

Extension of Phase II Watershed Implementation Plan (WIP) Deadlines: The June 1, 2011 deadline for the draft Phase II WIP and November 1, 2011 deadline for the final Phase II WIP are not feasible. It has been difficult to complete a viable Phase I WIP in the short deadline provided, especially given the limited understanding of local expectations. The amount of work for Phase II, which will be the most critical and detailed of the three WIPs, is enormous.

Additionally, states and counties will be digesting updated allocation numbers that EPA will be releasing in the interim. Recognizing the significant practical challenges of creating a useful and accurate plan in the time provided, the State of Maryland has requested an extension of the deadline and MACo concurs. If the current deadline is kept, the final product will be inferior and fail to meet its required goals.

Response

Please see the response to comment 0327.1.001.006.

Comment ID 0612.1.001.001

Author Name: Willis James

Organization: Titan America LLC

Titan America supports delaying adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

--The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0623-cp.001.002

Author Name: Comment Anonymous

Organization: Natural Resources Defense Council (NRDC)

Please don't be pushed into missing deadlines and ignoring what can be achieved.

The Chesapeake Bay can't afford more excuses and delay. I urge you to finalize a strong, accountable final TMDL, and to continue working with the states to ensure that their plans will deliver much-needed results.

Response

EPA is committed to developing the Bay TMDL by December 31, 2010.

Comment ID 0624-cp.001.001

Author Name: Bushey J.

Organization:

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it

settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0626-cp.001.001

Author Name: Stone Melanie

Organization: Holladay Properties, Inc.

The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0633-cp.001.005

Author Name: Bertoni John

Organization: Wastewater Treatment Plant, Village of Endicott, New York

The timeline set forth by the EPA for finalization of the TMDL (December 31, 2010) does not allow adequate time to develop a fair or realistic plan to decrease loading numbers to the Bay. There are too many inconsistencies with the EPA's computer models as well as the incorrect data being used to determine such numbers. It is our hope that the EPA will extend the implementation timeline in order to work with the State agencies (NYS DEC) to better ensure water quality in the Chesapeake Bay. By doing so, we can see where we could get a better "bang for the buck".

Response

Please see responses to comments 0067.1.001.009, 0238-cp.001.002 and 0379.1.001.006.

Comment ID 0652.1.001.002

Author Name: Pandish Steven

Organization: William H. Gordon Associates, Inc.

Therefore, I urge the EPA to delay adoption of the TMDL and backstops for at least one year (no earlier than December 31, 2011). It is in this context the following is offered.

Response

Please see responses to comment 0060.1.001.001 and 0062.1.001.

Comment ID 0654.001.001

Author Name: Igli Kevin

Organization: Tyson Foods, Inc.

The Bay is an important and special resource that deserves protection. If developed in accordance with sound science, a TMDL is one of many steps that could enhance the protection of the Bay. Tyson believes the current Draft TMDL is being rushed without appropriate time to ensure full incorporation of good science, public policy review, public notice and comment, and legal analysis. Hence, the Draft TMDL will not likely accomplish the goals for which it has been developed because of the artificial and detrimental speed at which EPA is forcing this process forward without the necessary input and support of myriad stakeholders in the watershed.

Response

EPA has been working with the Bay jurisdictions to develop a TMDL since 2005 in a deliberate and methodical manner. Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0670-cp.001.001

Author Name: Reese Jodi

Organization: CET Engineering Services

Will jurisdictions be given more time to adequately develop the final WIPs? The length of time provided to the jurisdictions for the development of the Watershed Implementation Plans was wholly inadequate and inappropriate, given the level of detail needed by EPA to satisfy "reasonable assurance". The nutrient allocations were released from EPA on July 1, 2010 and the sediment allocation on August 13, 2010. This is significantly later than the scheduled 2007 release of Phase 5 of the model and corresponding allocations to the jurisdictions! Draft WIPs were due to EPA on September 1, 60 days after receiving the nutrient allocations. So while EPA was able to substantially miss their schedule by years, jurisdictions were not afforded any additional time. Additional time must be provided to the

jurisdictions to complete their WIPs in order to adequately address issues and avoid the unachievable backstop provisions that EPA has placed in the draft TMDL.

Response

Please see the responses to comments 0217.1.001.001 and 0327.1.001.006.

Comment ID 0675-cp.001.001

Author Name: Orlando Robert

Organization: PR Patrick Henry LLC

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons: -

The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

For a comprehensive discussion of legal issues see EPA Essay Response to Legal Issues provided in response to comment number 0293.1.001.014.

Comment ID 0683-cp.001.001

Author Name: Massey R.

Organization: Ross, France & Ratliff, Ltd.

The EPA should delay adoption of the TMDL and backstops for at least one year and until no sooner than December 31, 2011 for the following reasons:

- The regulatory development process EPA has used for the TMDL has been too rushed. EPA set unreasonable deadlines and provided inadequate opportunity for comment both from the public and from the states. It is wrong for EPA to fail to establish a reasonable adoption process for this federal program that will cost Virginia residents, businesses and local and state governments billions of dollars. It is illegal for EPA to claim it had to do this because it

settled a lawsuit to which Virginia was not even a party.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0691.1.001.003

Author Name: Kirk Ken

Organization: National Association of Clean Water Agencies (NACWA)

Although EPA is not under any legal obligation to finalize the TMDL by its December 31, 2010 deadline, the Agency denied the many requests it received for an extension of the comment deadline. It will also be difficult, if not impossible, for EPA to carefully consider comments and make revisions to the TMDL by the end of the year. Given the enormous regional and national implications of the TMDL, EPA should allow more time for public comment and more time for itself to consider public input.

Response

Please see responses to comment 0060.1.001.001, 0062.1.001 and 0531.1.001.005.

Comment ID 0699-cp.001.001

Author Name: Garvick Jeffrey

Organization: Board of Commissioners, Pennsylvania Township and York County

The PADEP was not afforded sufficient time to develop the Watershed Implementation Plan as the nutrient allotments were not released by EPA until 7-1-10. Sediment allocations were not released until 8-13-10. The fact that draft WIP's were due to EPA just 60 days after receiving the allocation means that more time must be given to address issues and avoid the backstop provisions that are unattainable anyway.

Response

Please see the response to comment 0217.1.001.001.

Comment ID 0727.001.009

Author Name: Thigpen Janet

Organization: Steuben County Environmental Management Council

The proposed timeline for establishing the final TMDL (by December .') 1, 2010) does not allow sufficient time for EPA to develop a realistic and achievable TMDL. We request that implementation of the TMDL be delayed until EPA can achieve the following : (1) Revise the allocations so that they are fair and technically achievable ; including establishment of allocations for atmospheric sources of nitrogen and sources within the Bay itself. (2) Work constructively with the states to evaluate alternatives and prepare realistic and cost-effective Watershed Implementation Plans (without federal backstop requirements). (3) Identify funding from federal sources or from entities that stand to benefit from Chesapeake Bay restoration to enable implementation of the required practices . If the TMDL is established before these conditions are met, it is unlikely to achieve the goal of restoring water quality in the Chesapeake Bay. A poorly crafted and un-successful TMDL would not benefit the Bay and could compromise EPA's ability to implement Clean Water Act provisions in other areas .

Response

Please see responses to comments 0067.1.001.009 and Section 8 of the TMDL regarding WIPs, 0038.1.001.024 regarding funding opportunities, and 0379.1.001.006 regarding the models used in the TMDL. Finally, this TMDL did consider atmospheric sources of nitrogen and provided allocations for sources within the Bay itself.

Comment ID 0731-cp.001.003

Author Name: Jamison Peggy

Organization: Garrett Co. Municipalities

Finally, we would echo the comments made by Allegany County and by the Garrett County Planning Commission that the overlap of the timelines for the comment/input phase and implementation phase of both Phase I and Phase II WIP do not allow for the towns to fully understand the requirements and the implications of those requirements.

Response

Please see the response to comment 0327.1.001.006.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 35. TMDL Schedule

Pages 3006 – 3013

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

35 - TMDL SCHEDULE

Comment ID 0067.1.001.020

Author Name: Venezia Carmen

Organization: Global Tungsten & Powders Corporation (GTP)

EPA needs to give Pennsylvania a reasonable time to make those adjustments.

Response

For several months, EPA worked closely with the states and the District of Columbia to strengthen the draft Watershed Implementation Plans submitted to EPA in early September. EPA had numerous constructive meetings and conference calls with each of the jurisdictions and reviewed preliminary WIP submissions. EPA also worked with jurisdictions after the submittal of final WIPs to minimize or eliminate the possibility of federal backstop measures. The Watershed Implementation Plans are not part of the Bay TMDL. The review processes for the WIPs were determined by the individual states and the District of Columbia.

Comment ID 0089.1.001.013

Author Name: Hunter J. And M.

Organization:

WV challenges:

--The unrealistic timeline being handed to the State for Watershed Plan Implementation (WIP).

Response

Please refer to the response to comment 0067.1.001.020 and note that, the EPA and the states and D.C. have been collaborating on the development of the Chesapeake Bay TMDL since 2005.

Comment ID 0126.1.001.007

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

The WIP needs to be flexible to allow for changing conditions and look at progressive application. It is also important to note that due to present loads in the system and the nature of nutrients in the system, particularly phosphorus, water quality response will most likely be delayed for sometime after implementation of installation of the BMPs. This is

especially true in non-point source evaluation by use of benthic monitoring.

Response

EPA agrees that the WIPs need to be flexible to allow for changing conditions.

Comment ID 0126.1.001.017

Author Name: Craun Ed

Organization: Augusta County Farm Bureau

Any evaluation of the effectiveness of the implementations recommended should consider the length of time needed for the ecosystem to respond to the BMPs.

Response

Please see the response to comment 0126.1.001.007

Comment ID 0193.1.001.002

Author Name: Newsome Michael

Organization: Home Builders Association of Virginia (HBAV)

For that reason, HBAV strongly urges the EPA to be responsive to the many concerns of the home building industry, the broad based business community, localities and other affected source sectors on the economic impact and cost associated with the implementation of the TMDL. Surely the EPA can slow down to find better balance between the economic impact of the TMDL and the "immediate" clean up needs of the Bay.

Response

Please see the responses to comments 0061.1.001.008 and 0101-cp.001.001.

Comment ID 0200.1.001.006

Author Name: Devilbiss Thomas

Organization: Carroll County Government, Maryland

- We know that many requirements will be incorporated to the NPDES permits, thereby making the local jurisdictions responsible for that portion of the reductions. However, the responsibility cannot fall solely on the local jurisdictions to ensure that all of the measures are in place by the 2017 and 2010 milestones/target dates just because a certain portion of the load falls within their jurisdictional boundaries. Many of the options for achieving the targets are not within the authority of the local jurisdiction to enable and/or enforce. It should be clear that the State is committed to implementing all of the options that are within State authority, not relying on local jurisdictions to achieve it all. This includes enabling legislation needed to accomplish much of the WIP (ex. utility tax/fee)
- Text to clarify whether or not the local jurisdictions are expected to comply with the State's accelerated schedule for getting the measures in place, or if that applies only to the measures the State will put in place. The State committed to having the measures in place by 2017 and 2020 to achieve the reductions, but do the local jurisdictions also have to have their share of the options in place as well, or do local jurisdictions fall under EPA's timeline for these achievements? It would also be useful to local jurisdictions to know if any punitive measures enforced by EPA would only apply to the percentage not achieved beyond EPA's original target dates or to the percentage not achieved based on the State's commitment of 70 percent rather than 60 percent.

Response

EPA agrees that ensuring that the nutrient and sediment reductions occur is the responsibility of all involved including federal agencies and state and local jurisdictions. EPA encourages all to develop partnerships with each other to provide innovative and effective ways for meeting the TMDL goals. EPA can not insure that local legislation is drafted in the state to accomplish the WIP. EPA has reviewed each State's WIPs to insure that the WIP has a reasonable assurance of being fully implemented. The state must develop the WIP to meet at a minimum, EPA's expectations as expressed in letters dated 9/11/2008, 11/4/2009 and 4/2/2010. The States' WIPs are not part of the TMDL. Please refer to comment 8 of the Final TMDL for further information regarding each States' WIPs.

Comment ID 0225.1.001.002

Author Name: Locke Latana

Organization: Fredericksburg Area Association of Realtors (FAAR)

FAAR urges the EPA to delay implementation of the TMDL and backstops for at least one year.

Response

Please see the response to comment 0062.1.001.004

Comment ID 0252.1.001.001

Author Name: Bond Arthur

Organization: City of Frostburg, Maryland

Frostburg is a small, non-urban (under 10,000 population) City set in a generally rural environment near the headwaters of three Bay tributaries, owning land in a forth Bay tributary in neighboring Garrett County, all draining to the North Branch of the Potomac River. The City also owns land for its municipal water supply in the Piney Creek watershed that drains to the Gulf of Mexico, also in eastern Garrett County.

Frostburg understands the urgency of the need to address the Clean Water Act with regard to the Bay throughout the entire watershed; we do not request an extension.

Response

EPA notes comment.

Comment ID 0265.1.001.017

Author Name: Clark, Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Hampton, Virginia

Aside from the question of EPA's legal authority to establish a deadline in the TMDL, the 2025 deadline would have significant consequences for the Localities because it would directly impact their MS4 programs and their ability to comply with their future permits should the permits contain, as expected, Bay TMDL-derived conditions based on the deadline. The other source sectors would be largely unaffected by the 2025 deadline. Municipal and industrial wastewater treatment plant upgrades are generally completed within the five-year terms of their permits, and while the widespread implementation of agricultural BMPs and onsite septic system retrofits may be a long-term undertaking, the deadline would not expose these largely unregulated sources to either the added costs of attempting to attain the allocations by an enforceable deadline or the risk of enforcement for permit non-compliance. The 2025 deadline would expose the Localities, on the other hand, to future NPDES permits containing retrofit implementation schedules that, as explained above, would, at a minimum, dramatically increase their compliance costs, or more likely, would be unattainable despite their best efforts to achieve compliance by the deadline.

Response

EPA has reconsidered its approach to backstop allocations as proposed in the draft TMDL. This is in large part due to the improved final state WIPs and informative comments on the issue. The final TMDL places much greater emphasis on state WIPs and less emphasis on backstops in deriving the loading allocations for all sectors.

Comment ID 0277.1.001.006

Author Name: Shambaugh Brenda

Organization: PA Association of Conservation Districts (PACD)

In conclusion, PACD strongly advocates that PA, not EPA, develop and administer the PA nutrient reduction program including all goals and timelines. The plan must be flexible and there must be reasonable timeframes to for the agricultural community develop and update conservation plans bringing farms into compliance. With the proper funding for conservation districts and cost sharing opportunities for the agricultural community, PA can, and will successfully meet the nutrient reduction goals associated with EPA mandates.

Response

The development, implementation and administration of the WIPs was delegated to the jurisdictions unless they failed to meet the requirements of the WIPs as outlined in letters dated 9/11/2008, 11/4/2009 and 4/2/2010.

Comment ID 0280.1.001.004

Author Name: Newcomb Jim

Organization: Dorchester Soil Conservation District

The Dorchester Soil Conservation District has reviewed Maryland's Watershed Implementation Plan (WIP) and would like to make the following comments.

- Maryland should stick to the federal timetable and not try to meet the goals 5 years earlier than all other Bay states. Especially in this economic climate the extra requirements tied to meeting these TMDL goals, in addition to being accelerated, will negatively impact all segments of Maryland while our partner states are not sharing in the burden equally.

Response

The Watershed Implementation Plans (WIPs) submitted by each State/Commonwealth/District of Columbia (D.C.) are part of the accountability framework outlined in the Chesapeake Bay Protection and Restoration Executive Order 13508. The WIPs help ensure implementation of the Chesapeake Bay Total Maximum Daily Load (TMDL) but are not an approvable part of the TMDL. Because this public comment period is specific to EPA's Chesapeake Bay TMDL, specific comments on each State/Commonwealth/D.C. WIP should be directed to the appropriate State/Commonwealth/D.C. agency for consideration.

Comment ID 0330.1.001.012

Author Name: Krasnoff Alan

Organization: City of Chesapeake, Virginia

The 2025 deadline for achievement of the Draft TMDL pollutant reduction goals will be extremely difficult, if not impossible, given the legal, land use and fiscal issues involved.

Response

It will be a challenge to meet the 2025 deadline but EPA is committed to work with its jurisdictional partners in order to achieve this.

Comment ID 0411.1.001.001

Author Name: Moon Michael

Organization: Public Works and Utilities, City of Manassas, Virginia

1. The Chesapeake Bay TMDL Program appears to be front-end loaded with a goal of achieving 60% nutrient targets by 2017. This should be phased to assist the state and localities to address the financial requirements necessary to implement the plan.

Response

The 60% by 2017 is slightly more ambitious than the 40% implementation needed in the 8 years after and represents a phasing of 15 years for the entire implementation.

Comment ID 0436.1.001.017

Author Name: Clark Stan

Organization: Hampton Roads Planning District Commission (HRPDC), Chesapeake, Virginia

Aside from the question of EPA's legal authority to establish a deadline in the TMDL, the 2025 deadline would have significant consequences for the Localities because it would directly impact their MS4 programs and their ability to comply with their future permits should the permits contain, as expected, Bay TMDL-derived conditions based on the deadline. The other source sectors would be largely unaffected by the 2025 deadline. Municipal and industrial wastewater treatment plant upgrades are generally completed within the five-year terms of their permits, and while the widespread implementation of agricultural BMPs and onsite septic system retrofits may be a long-term undertaking, the deadline would not expose these largely unregulated sources to either the added costs of attempting to attain the allocations by an enforceable deadline or the risk of enforcement for permit non-compliance. The 2025 deadline would expose the Localities, on the other hand, to future NPDES permits containing retrofit implementation schedules that, as explained above, would, at a minimum, dramatically increase their compliance costs, or more likely, would be unattainable despite their best efforts to achieve compliance by the deadline.

Response

Please see the response to comment 0265.1.001.017.

Comment ID 0510.1.001.010

Author Name: Haterius Stephen

Organization: National Association of State Departments of Agriculture (NASDA)

Adding implementation measures has only added to the complexity of the Draft TMDL. The Draft TMDL consists not only of the 370 pages of the Draft TMDL document, but also the 1672 pages of the 22 appendices, as well as the technical analysis and modeling information that is referenced throughout the Draft TMDL. We have not attempted to quantify the volume of that supporting information.

Despite its acknowledgement that the Draft TMDL is the most complex ever attempted, EPA is allowing only 45 days for public comment. Forty-five days is insufficient under the APA to provide for meaningful public comment. In its October 22, 2010, letter to Congressman Goodlatte and Congressman Holden, EPA bases its refusal to extend the comment period on the deadlines that the administration has imposed on itself through Executive Order 13508 and through a settlement agreement with Chesapeake Bay Foundation even though these are self-imposed deadlines.

Response

Please see the responses to comments 0060.1.001.001 and 0062.1.001.004.

Comment ID 0737.001.002

Author Name: Comment Anonymous

Organization: Lower Allen Township Authority

Objective - EPA should provide in the TMDL a year in which the Bay water quality will be improved following full implementation of the TMDL.

Response

There is a lag time between the implementation of management practices and benefits to water quality. EPA can not provide a date when water quality standards will be achieved; however, we anticipate full implementation of the TMDL by 2025.

Comment ID 0745.001.002

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

Response

Please refer to Section 8 of the TMDL for information regarding EPA's evaluation of State WIPs.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 36. Appendix A

Pages 3014 – 3014

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

36 - APPENDIX A

Comment ID 0037-cp.001.001

Author Name: Schneider John

Organization: Delaware Department of Natural Resources & Environmental Control

Draft Appendix A contains the following errors:

Agriculture Workgroup-

Mark Davis is listed as a U.S. Dept of Agriculture representative. He represents the Delaware Department of Agriculture.

Response

EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these suggested revisions and where appropriate, has incorporated them into the final TMDL report.

Comment ID 0037-cp.001.002

Author Name: Schneider John

Organization: Delaware Department of Natural Resources & Environmental Control

Draft Appendix A contains the following errors:

Also, delete the 4th "e" in "Wastewater Treatment Workgroup."

Response

EPA has received numerous comments with suggested editorial or typographical revisions. EPA has reviewed each of these suggested revisions and where appropriate, has incorporated them into the final TMDL report.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 37. Appendix B

Pages 3015 – 3015

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

37 - APPENDIX B

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 38. Appendix C

Pages 3016 – 3016

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

38 - APPENDIX C

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 39. Appendix D

Pages 3017 – 3017

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

39 - APPENDIX D

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 40. Appendix E

Pages 3018 – 3018

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

40 - APPENDIX E

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 41. Appendix F

Pages 3019 – 3019

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

41 - APPENDIX F

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 42. Appendix G

Pages 3020 – 3020

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

42 - APPENDIX G

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 43. Appendix H

Pages 3021 – 3021

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

43 - APPENDIX H

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 44. Appendix I

Pages 3022 – 3022

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

44 - APPENDIX I

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 45. Appendix J

Pages 3023 – 3023

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

45 - APPENDIX J

Comment ID 0146.1.001.008

Author Name: Isenberg W.

Organization: Virginia Commonwealth University Center for Environmental Studies. Class: ENVS 601, Professor: P.L. deFur

Also, in Appendix J on the top of page 3 the first word in the fourth line says "bu" when I am sure the intended word was "by." I understand that is simple silly repairs, but figured you might like to know.

Response

Thank you.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 46. Appendix K

Pages 3024 – 3024

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

46 - APPENDIX K

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 47. Appendix L

Pages 3025 – 3025

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

47 - APPENDIX L

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 48. Appendix M

Pages 3026 – 3026

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

48 - APPENDIX M

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 49. Appendix N

Pages 3027 – 3027

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

49 - APPENDIX N

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 50. Appendix O

Pages 3028 – 3028

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

50 - APPENDIX O

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 51. Appendix P

Pages 3029 – 3029

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

51 - APPENDIX P

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 52. Appendix Q

Pages 3030 – 3034

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

52 - APPENDIX Q

Comment ID 0062.1.001.011

Author Name: Bodine Susan

Organization: Agricultural Retailers Association et al.

These TMDLs include allocations for 1,006 individual residences, by individually naming the homeowners in Appendix Q.

Response

Please see the response to comment 0681.1.001.014.

Comment ID 0254.1.001.001

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

The detailed TMDL allocation tables presented in Appendix Q of in the draft Bay TMDL report are not well constructed and contain inconsistencies that make it impossible to know with confidence that EPA has adopted the waste load allocations (WLAs) proposed in the District Department of the Environment's (DDOE's) September 1,2010 draft Phase I Watershed Implementation Plan (Draft WIP).

Response

Please see the response to comment 0681.1.001.014.

Comment ID 0254.1.001.003

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

DC Water assumes that EPA has included the Outfall 001 and CSO allocations from the Draft WIP in the Bay TMDL based on the allocation summary in Table ES-I and the summary of the backstop allocations in Section 8.3.3 of the draft TMDL Report, but, again, is unable to confirm that the WLAs are, in fact, in the Bay TMDL because of the construction of the allocation tables.

Response

Please see the response to comment 0681.1.001.014.

Comment ID 0254.1.001.004

Author Name: Hawkins George

Organization: District of Columbia Water and Sewer Authority

Further, inconsistencies in the allocation tables make it impossible to know which table reflects the allocations proposed for Blue Plains and the District's combined sewer system. The following table illustrates the extent of the consistency problem: [Table 9-1. See pg 2 of original document 0254.1] It is incumbent upon EPA to correct these inconsistencies and include detailed allocation tables in the final Bay TMDL that clearly identify and list the allocations assigned to Blue Plains and the District's combined sewer system. Nevertheless, in the absence of any evidence to the contrary, we will assume for purposes of these comments that EPA included in the draft TMDL all of the allocations proposed in the Draft WIP.

Response

Please see the response to comment 0681.1.001.014.

Comment ID 0272.2.001.020

Author Name: Pippel Julie

Organization: Maryland Association of Municipal Wastewater Agencies, Inc. (MAMWA)

[Comment from footnote 24 of comment ID 0272.2.001.013]

On a related note, in Table Q-1, EPA's Draft TMDL appears to provide individual WLAs for non-significant WWTPs (including POTWs). This is in contrast to Maryland's Draft WIP (aggregates WLAs for non-significant WWPTs). MAMWA strongly supports the State's approach. These smaller plants are not being required to upgrade (see discussion above). EPA should correct its TMDL to provide aggregate loadings. Furthermore, EPA should make it clear in the text and in all appendices that reference loadings that insignificant WWTPs are being aggregated for purposes of the TMDL, but that they are not expected to upgrade to attain such loadings, nor should their permits reflect any individual loading.

Response

Please see the response to comment 0681.1.001.014.

Comment ID 0444.1.001.008

Author Name: Allen Paul

Organization: Constellation Energy

Appendix Q of the Draft TMDL contains EPA's calculated wasteload allocations. Appendix Q1 contains the loads to achieve proposed amended water quality standards and Appendix Q2 contains the full backstop allocations in the case EPA believes these are necessary. The methodology for arriving at the allocations, specifically for the "nonsignificant" discharges, is not clear. Some have allocated loads, others do not, but should have. For example, Calvert Cliffs Nuclear Power Plant, LLC, where Constellation has ownership interests, (line 6598 in Appendix Q1) has been allocated 0 pounds/year for nitrogen, phosphorus, and sediment which is not correct. Calvert Cliffs has an on-site wastewater treatment plant and uses nitrogen and phosphorus-containing compounds in its plant processes. As required by its NPDES permit, Calvert Cliffs submitted to the Maryland Department of the Environment estimated annual loadings of 15,000 pounds/year of total nitrogen and 100 pounds of total phosphorus. There was no requirement in the Calvert Cliffs permit to estimate sediment loads. Therefore, at a minimum, Calvert Cliffs should have wasteload allocations for nitrogen and phosphorus.

Maryland's Watershed Implementation Plan (Appendix C) did not allocate watershed loadings to all specific dischargers, but rather considered the "nonsignificant" dischargers as aggregated with individual loadings to be determined at a later date based on Tributary Strategies. This approach seems more appropriate given the fact that the model is still undergoing revision and that information upon which to base the individual loadings appears, in the case of our example, to be incomplete.

Based on this relevant example, EPA should withdraw Appendix Q and work with the states and the District of Columbia to prepare the individual wasteload allocations once all relevant information is known. The revised allocations must then be resubmitted for public review and comment.

Response

Please refer to the response for comment 0067.1.001.009. Section 8 of the final TMDL report describes the methodology by which EPA evaluated the jurisdictions' final Phase I WIPs, the process for developing the backstop allocations, the WIP evaluation findings and the resulting backstop allocations EPA established for each jurisdiction.

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Comment ID 0463.1.001.012

Author Name: Sharma Lalit

Organization: City of Alexandria, Virginia

In Appendix Q-I of EPA's Draft TMDL includes multiple discharge points based on EPA's interpretations of minor stream segments for CSO permit outfalls for the City of Alexandria. EPA should aggregate the CSO loads for each system.

Response

Please see the response to comment 0681.1.001.014.

Comment ID 0502.1.001.006

Author Name: Frank Stephen

Organization: RRI Energy

Of specific concern is that our Shawville Generating Station may have been inadvertently overlooked through this multi year development process. While we are prepared to conduct additional monitoring of TN at the station to establish baseline loadings from our multiple outfalls, some data was collected in July and August of 2005. A summary of this data is included in Table 1 (attached) for your consideration.

[Table 1. Shawville Sampling Data. See original document 0502.1]

We request that the DEP and EPA evaluate the data associated with our discharges and allow the Shawville Generating Station adequate time to develop a discharge baseline and to be appropriately addressed in the PA WIP and Bay TMDL.

RRI Energy is committed to working with the DEP and EPA to establish TMDLs that are scientifically sound, legally defensible, cost effective, and equitable. Please do not hesitate to contact me at (724) 597-8310 if you have any questions or require additional information.

Response

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Regarding specific comments on a jurisdiction's WIP, please refer to the response for comment 0034-cp.001.001.

Comment ID 0529.1.001.002

Author Name: Laczynski Michael

Organization: INVISTA - Waynesboro

Section 4.5.5 of the Draft Chesapeake Bay TMDL ("Draft TMDL") makes reference to industrial storm water as point

sources and notes that the Draft TMDL inventories the industrial storm water in Appendix Q. Allocations for Baugher Farm appear to be missing from Appendix Q and may not have been properly considered as part of the modeling for the Draft TMDL.

Response

Please see the response to comment 0681.1.001.014 for additional information on Appendix Q.

Comment ID 0681.1.001.014

Author Name: Baxter Russ

Organization: VA Department of Environmental Quality

Industrial Stormwater VPDES Permit Aggregate Allocation

The TMDL Appendix Q-1 and Q-2 should clarify that industrial stormwater VPDES permit discharges are included in the Source "Stormwater-MS4".

Aggregate loadings for industrial stormwater VPDES permits should be included in Appendix Q as part of the "Stormwater-MS4" for each segment. DEQ previously submitted an updated spreadsheet that added 12 facilities and replaced EPA contractor Tetra Tech "estimated acres" with the area information found in the individual permit registration statements to the extent such information was available.

Wastewater

The TMDL Appendix Q-1 and Q-2 will need to be revised based upon the updated model input deck that DEQ will provide to EPA by November 12th . The submission will include corrected information from the September 2 submission.

Response

EPA has received numerous comments regarding the format of the allocation tables in Appendix Q including poor table construction, difficulty in locating specific facility wasteload allocations, and confusion regarding individual allocations provided to facilities that should have been part of an aggregate allocation. EPA has corrected Appendix Q to address these comments.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 53. Appendix R

Pages 3035 – 3035

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

53 - APPENDIX R

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 54. Appendix S

Pages 3036 – 3040

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

54 - APPENDIX S

Comment ID 0294.1.001.004

Author Name: Haley Mark

Organization: Virginia Nutrient Credit Exchange Association, Inc.

- NPDES Permit Noncompliance (Page S-4, Item 6 (b))- This provision is irrelevant to trading and, in practice, certainly stands to disrupt trading. For trading to be reliable and useful for the users as well as the regulators, it makes no sense that otherwise valid nutrient credits would be disqualified upon noncompliance of the credit-generating facility. Consider just a few examples of potential noncompliance: failure to submit a complete renewal application or a required facility-related manual on time, laboratory testing errors, inadvertent exceedence of unrelated effluent limits, etc. This provision will only inject unnecessary uncertainty into the trading or offsetting process, would not "safeguard" nutrient trades, and actually would work against EPA's stated objectives. This element should be eliminated.
- "Disproportionate Harm" (Page S-4, Item 6 (c)) - While the Nutrient Exchange aims to improve water quality and surely to do no harm, we note that this provision is redundant of the many provisions in Appendix S that state that trading or offsetting must be consistent with water quality standards applicable to human health and aquatic life. This provision is redundant of the standards that preclude harm by their own terms and, therefore, the provision should be deleted.
- "Temporal Consistency" (Page S-4, Item 6 (d)) - This provision should be clarified to provide that temporal consistency is satisfied for point sources when the credit is generated and used within the same 12 month period. This request is consistent with the annual basis for the TMDL and WLAs.
- "Accountability" Provisions (Page S-5, Item 8) - Much of this section is redundant of the previous seven items in Appendix S. However, a number of the items are worded slightly differently than those prior items. This may lead to confusion and further complicate implementation. We suggest deleting all sub-elements that are addressed elsewhere in the document.

Response

Thank you for your comments. Facilities generating credits for sale need to be in compliance with existing environmental laws and regulations. This is consistent with EPA's Trading Policy.

Comment ID 0472.1.001.001

Author Name: Fults Brent

Organization: Chesapeake Bay Nutrient Land Trust, LLC

Following many years of experience in the wetland and stream private mitigation banking field, EarthSource Solutions, Inc. created the Chesapeake Bay Nutrient Land Trust, LLC (CBNLT) in 2006 as a private market-based entity with the

purpose of generating and transferring nonpoint nutrient offsets ("Offsets") to compensate for nutrient inputs into the Chesapeake Bay and its Virginia tributaries. CBNLT has worked closely with the Virginia Department of Environmental Quality (DEQ) and Virginia Department of Conservation and Recreation (DCR) to develop private facilities that create nonpoint nutrient offsets that can be traded to point sources (under DEQ's program) and developers who cannot meet phosphorous requirements found in Virginia's stormwater permits and regulations (under DCR's program). [FN 1]

CBNLT is thus in a position to provide real world insights and perspective on the impact of the TMDL and Virginia WIP on private market based trading and how private entrepreneurial trading can aid in meeting the water quality needs of the Chesapeake Bay and its tributaries.

It is important to note that the Offsets created under the Virginia program meet the expectations found in Appendix S of the TMDL. Nonpoint nutrient Offsets created by CBNLT provide:

Nutrient Reductions Exceeding "Baseline" Requirements - Offsets represent nutrient reductions in excess of those otherwise required by, or funded under, state or federal law or by tributary strategy plans, and provide an incentive for baseline to be achieved so that Offsets can be created.

Pre-Implemented Benefits - Offsets are state verified on-the-ground nutrient reductions that are in place well in advance of the land disturbing activity that will need the Offset occurring. Large nutrient reductions are created well in advance of their use as Offsets.

Protection of Local Water Quality - Offsets may not be used in contravention of local nutrient water quality requirements. In addition, six percent of each transaction fee goes to DCR or a locality for local water quality enhancement programs. As long as local water quality is protected, Offsets may be used in the same HUC or adjacent HUC just as wetland mitigation credits can be used in Virginia. If no Offset facility is in either HUC, Offsets may be used from the same River Tributary.

Accounting for Attenuation - Offsets are based on the reduction in delivered load to the Bay rather than streamside reductions. This also provides local water quality benefits and eliminates the need for a trading ratio. A trading ratio is also not needed due to the conservative nature of the reduction calculations.

Perpetual Protection - Stormwater Offsets must be protected in perpetuity. Offsets for point sources must be protected for the duration of the point source's need.

Financial Assurance - Offsets are financially assured by the Offset provider until such time as the land conversion has been deemed to be established.

Verified and Enforceable Reductions - Two state agencies must certify the nutrient reductions before they are available for transfer, both agencies have the ability to inspect Offset facilities and require compliance, annual reports of Offset facility compliance is provided, and Offsets are incorporated into permit requirements.

Phosphorous and Nitrogen Benefits - Virginia's stormwater program only regulates phosphorous, but both phosphorous and the associated Offset facility's ratio of nitrogen are retired.

Tracking of Transactions - Similar to the wetland and stream banking systems, Offset facilities provide ledgers documenting transactions and available Offsets.

Private Investment with Public Returns - No state or federal money is needed for Offset creation but their use provides economic benefits to developers, state and local tax bases, and environmental benefits beyond just nutrient reductions.

TMDL and VIRGINIA WIP COMMENTS

TMDL Appendix S

As noted above CBNLT's Offsets meet EPA's expectations for a tradable credit. However, CBNLT's experience in Virginia has shown that there are road blocks to the actual use of the Offsets. One of the more significant road blocks is local government-administered in lieu fee programs, pro rata share and similar programs. Virginia localities thus have the ability to create programs to allow developers to "achieve" stormwater nutrient requirements through payments rather than actual controls. However, the fees are being accumulated and don't always appear to be utilized for nutrient reductions, let alone nutrient reductions that are equivalent to those needed to address the associated impacts. These programs have not qualified under a certification program that meets the needs of the TMDL as offsets have, and also operate in a subsidized environment supported by tax dollars and voluntary payments. The time lag (some localities assert that they have the right to accumulate funds for twelve years before using them) between fee collection and utilization for nutrient reductions means a temporal loss of nutrient reductions as well.

Appendix S should specifically disallow the use of trading mechanisms that do not meet the same high standards imposed upon the private market for the generation and use of credits. Included in this should be a specific statement that Offsets must be certified and represent actual in the ground nutrient reductions at the time of need and that programs that accept funding for some future nutrient reductions may not be used. EPA should provide a clear endorsement of DEQ/DCR certified private facilities, such as those developed by CBNLT, and assert that they should be used prior to other, less reliable sources of nutrient reductions.

[FN 1] These facilities are the first of their kind certified in Virginia by both DEQ and DCR and include the Wildwood Farm in Appomattox County (with annual phosphorous reductions of 101 pounds and 376 pounds of nitrogen) and the Cranston Mill Project in James City County (with annual reductions of 752 pounds of phosphorous and 1,655 pounds of nitrogen).

Response

Thank you for your comment. Similar to a credit exchange, a private offset could potentially buy and sell credits that are utilized in conjunction with the Chesapeake Bay TMDL. EPA and the Chesapeake Bay jurisdictions would be interested in receiving further information and having further discussions about a private offset approach.

Comment ID 0472.1.001.003

Author Name: Fults Brent

Organization: Chesapeake Bay Nutrient Land Trust, LLC

Although environmental credit markets have been around for some time, nutrient Offsets are an innovative and novel approach. Rather than encouraging the use of innovative methods of nutrient reduction, there has been a lack of clear endorsement and support of the use of Offsets by state and local governments. This lack of clear support creates a level of unfamiliarity and potential reluctance that permit issuing authorities, landowners and the development community may have toward the use of Offsets.

As the federal government and the Bay jurisdictions strive to achieve the water quality goals for the Chesapeake Bay, the active participation of a private nonpoint nutrient Offset market will be essential. The implemented nutrient reductions and resulting Offsets will provide landowners with additional stewardship and income opportunities while encouraging land use alternatives that will immediately contribute to improved water quality of the Bay and its tributaries.

Neither the Virginia WIP nor the TMDL (Appendix S) address the failure of local programs to provide equivalent nutrient reductions contemporaneously with the land disturbing impact. As noted above, there are a variety of mechanisms by which the Virginia WIP should be significantly improved to promote, rather than hinder, the development of cost effective entrepreneurial solutions.

If you have any questions, please feel free to contact Brent Fults or Scott Reed of CBNLT at (804) 222- 5114 or Shannon Varner at Troutman Sanders LLP at (804) 697-1331.

Response

Thank you for your comment. Similar to a credit exchange, a private offset could potentially buy and sell credits that are utilized in conjunction with the Chesapeake Bay TMDL. EPA and the Chesapeake Bay jurisdictions would be interested in receiving further information and having further discussions about a private offset approach.

Comment ID 0571.1.001.022

Author Name: Rountree Glynn

Organization: National Association of Home Builders (NAHB)

d. Comments on Appendix S. Offsetting New or Increased Loadings of Nitrogen, Phosphorus and Sediment to the Chesapeake Bay Watershed.

i. Page S-2, section II, 3, Offsets Baseline - Farmers have made it clear that if they must meet the TMDL baseline, it disadvantages those farms that have voluntarily installed BMPs to improve water quality. In addition, they say that once they meet the TMDL baseline requirements, they will have used most all of the inexpensive measures to improve water quality, and further measures will increase the cost of their credits to be sold. EPA should allow credit for farms towards

meeting the TMDL baseline from existing BMPs on the farm that were installed prior to the TMDL. Further, farmers should be allowed to sell credits prior to meeting the baseline if they show a credible plan to achieve and verify meeting the TMDL baseline after selling credits. Without such flexibility provisions, the generation of credits for sale from agricultural operations will be constrained.

ii. Page S-2, Section III.1., Authority - Since the federal Construction General Permit will be revised in 2011, EPA should consider supplying language for inclusion in the new permit that endorses the concept of water quality credit trading to encourage states to consider trading to lower their costs of water quality improvement measures.

iii. Page S-3, Section 2.(b), Offsets Baseline (for credit generators) - this section contains the term "geographic scale." Does this term refer to the geographic region where the credits from a source can be bought?

iv. Page S-4, 7.(b) - This section discusses estimating the pollutant loading from nonpoint sources and discharges from unpermitted sources. This estimate must account for the airborne deposition of NO_x from the emissions from Southeast Asia, Mexico, Canada, and other foreign nations. NO_x deposited into the Chesapeake Bay watershed from sources outside the scope of the TMDL will continue to increase for the foreseeable future. Domestic permitted sources must not be penalized by being forced under the TMDL to make additional pollutant reductions to account for the actions of offshore, unregulated air emissions that deposit NO_x into the Chesapeake Bay watershed.

v. Page S-4, 7.(c) - Given the economic situation of the states, the additional burden on the states on the new TMDL requirements, and the existing permit backlogs in the states, it is not practical, and certainly not a good use of rare resources, to reopen state permits to incorporate offset transactions. The overhead costs of any trading program will increase the price of credits, shutting some sources out of the credit market simply because they will not be able to afford the credits or the credits are unavailable at any price. There is no environmental value gained by adding offset transactions to permits when such information will be found on the website of the entity responsible for selling trading credits. Adding to the trading program's overhead cost by requiring permits to incorporate the offset transaction is a bad idea.

vi. Page S-5, 8(c) - Home builders will be disadvantaged if the offset or credit purchased cannot be sold again during the term of the credit. As we understand it, credits are normally of multi-year duration, perhaps 3-5 years, much longer than required for the majority of homebuilders, who need only nine months to build a home. At a minimum, EPA should consider adding a provision for those with short-duration permits providing that, at the termination of their NPDES permit, they can sell the remainder of their credits to another source.

Response

Thank you for your comments. EPA considered as it finalized the TMDL.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 55. Appendix T

Pages 3041 – 3041

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

55 - APPENDIX T

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 56. Appendix U

Pages 3042 – 3042

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

56 - APPENDIX U

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 57. Appendix V

Pages 3043 – 3043

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

57 - APPENDIX V

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category: 58. Appendix W

Pages 3044 – 3044

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

58 - APPENDIX W

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

Issue Category:

59. Appendix General/Miscellaneous

Pages 3045 – 3045

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

59 - APPENDIX GENERALMISCELLANEOUS

No Comments are Applicable to this Issue Category, and Thus No Response is Necessary.

**Response to Public Comments: Chesapeake Bay TMDL for Nitrogen,
Phosphorus and Sediment**

**Issue Category: 60. Mass Campaign
Comments**

Pages 3046 – 3070

60.0 Mass Campaign Comments	Pages 3046 – 3046
60.1. NRDC	Pages 3046 – 3046
60.2. NWFAF	Pages 3046 – 3046
60.3. Supports NYS DEC (Comment – 0389)	Pages 3046 – 3049
60.4. Use of EPA's Authority to Improve MDs WIP	Pages 3049 – 3070

December 29, 2010

Docket #: EPA-R3-OW-2010-0736

60 - MASS CAMPAIGN COMMENTS

These letters have been coded and responded under the applicable categories.

60.1 - NRDC

These letters have been coded and responded under the applicable categories.

60.2 - NWFAF

Comment ID 0621-cp.001.001

Author Name: Comment Anonymous

Organization: National Wildlife Federation Action Fund

The Chesapeake Bay community depends on clean water for health, livelihoods and economic security.

Unfortunately, pollution is killing the Chesapeake and hundreds of other rivers and creeks in the region. All this pollution gets collected into the bay, which is no better shape today than it was 25 years ago.

You now have the unique opportunity to do something about it, and the time has come to put strong, enforceable water safety standards in place to protect homes, support the economy and ensure that streams and rivers are healthy today and for our children's future.

I urge you to develop a strong pollution diet in the state that holds everyone accountable for the pollution that is harming our wildlife and damaging the local economy. It is imperative that these plans address all sources of pollution and demonstrates how reductions will be gained. Citizens across the state and the region need your help to keep our water clean and protected.

Response

EPA notes commenter's support for the Chesapeake Bay TMDL.

60.3 - SUPPORTS NYS DEC (COMMENT -0389)

Comment ID 0364-cp.001.001

Author Name: Hazlitt K.

Organization:

As a supporter of the family farms within New York's Chesapeake Bay watershed area, I ask that the Environmental Protection Agency (EPA) revise New York's Chesapeake Bay Total Maximum Daily Load (TMDL) allocation to a realistic and attainable standard and accept the NYS Department of Environmental Conservation's (NYS DEC) Watershed Implementation Plan (WIP) which is an aggressive and realistic plan to protect water quality in New York's portion of the Bay watershed.

Clean water is a priority of New York farmers, who have worked for many years to protect the state's water resources under the most progressive water quality standards in the country. The EPA should revise New York's Chesapeake Bay TMDL allocation to more adequately reflect NY's environmental achievements, be more proportionate in accordance with science, account for NY's decreasing environmental footprint over the past decade and reflect that NY's water quality chemistry already meets Bay specifications for high water quality as required by EPA's TMDL. New York's state-wide environmental program achievements, as well as its unique landscape, growing conditions and seasonality - which differ from other five Bay watershed states - should all be accounted for in any Chesapeake Bay Program TMDL.

EPA should also adopt the model refinements recommended by the NYS DEC in their draft Phase I Watershed Implementation Plan to restore the Chesapeake Bay and its watershed. The strategy presented in NYS DEC's WIP is an aggressive, achievable, credible, stakeholder driven plan which provides adequate assurances on NY's ability to achieve stated nutrient reductions. These requested model refinements reflect the environmental protection accomplishments New York State has already attained and truthfully represents the practices of environmental stewardship currently employed on New York's family farms.

New York's farm communities in the Bay watershed have serious concerns that U.S. Environmental Protection Agency Region 3 (USEPA R3) has not accurately accounted for all pollutant reduction factors which are distinct and unique to New York. Unlike other Bay watershed states, New York's small portion of the Chesapeake Bay watershed is characterized by low population growth, low intensity agriculture, forest and high water quality. This is significant because the brunt of any nutrient load allocation requirement will fall squarely on our small family farms in the Bay watershed region in the absence of any other significant industry or population centers to satisfy USEPA R3 pollutant reduction targets.

Since 2004, the NYS DEC, in partnership with the New York State Department of Agriculture and Markets, has been implementing a practical, programmatic, state-wide approach to nutrient and sediment reduction which has resulted in marked improvements to the Susquehanna River Basin region and, thereby, the Chesapeake Bay watershed. These existing state water quality and agricultural environmental management programs have established practices and standards which exceed federal minimum requirements and pre-date any EPA mandate.

For these reasons, please revise New York's Chesapeake Bay Total Maximum Daily Load (TMDL) allocation to a realistic and adopt the model refinements recommended by NYS DEC in their Draft Phase I Watershed Implementation Plan.

Response

During the public comment period, EPA received hundreds of these letters as part of a mass mailing campaign. EPA's notes all the commenter's support for NYS DEC's watershed implementation plan. With regards to comments that relate to New York's allocations, please refer to response to comment 0080-cp.001.002. With regards to EPA's WIP backstop rationale, please refer to response to comment 0067.1.001.007 and Section 8 of the TMDL report.

Comment ID 0559-cp.001.003

Author Name: Roe T.

Organization:

Unlike other Bay watershed states, New York's small portion of the Chesapeake Bay watershed is characterized by low population growth, low intensity agriculture, forest and high water quality. This is significant because the brunt of any nutrient load allocation requirement will fall squarely on our small family farms in the Bay watershed region in the absence of any other significant industry or population centers to satisfy USEPA R3 pollutant reduction targets. Since 2004, the NYS DEC, in partnership with the New York State Department of Agriculture and Markets, has been implementing a practical, programmatic, state-wide approach to nutrient and sediment reduction which has resulted in marked improvements to the Susquehanna River Basin region and, thereby, the Chesapeake Bay watershed. These existing state water quality and agricultural environmental management programs have established practices and standards which exceed federal minimum requirements and pre-date any EPA mandate.

Response

Please refer to response to comment 0080-cp.001.002.

Comment ID 0767.001.014

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I support clean water in the Chesapeake Bay and in my community of Kensington, Maryland. With the development of our state's first Watershed Implementation Plan, the EPA has a unique opportunity to ensure the establishment of effective programs to save the Chesapeake Bay for generations to come. However, the plan lacks implementation details for meeting the plan's goals. I urge you, as the EPA Administrator, to require the state of Maryland to improve its plan by ensuring the necessary specific measures are articulate and implemented to clean the bay's water by 2020.

The Chesapeake Bay is one of our country's most treasured waterways. I'm sure you agree with this and your vigorous action will determine to a large degree whether we succeed in saving this treasure or passing on to our children an opportunity lost, a treasure ill spent.

I know your challenges are many and difficult, but please make restoring the Chesapeake Bay one of your highest

priorities. I would appreciate your views on this challenge and those actions planned to save the Chesapeake Bay.

Response

EPA notes the commenter's support for protecting the Chesapeake Bay. Please refer to Section 8 of the final TMDL which outlines EPA's evaluation of the jurisdictions' watershed implementation plans.

Comment ID 0767.001.021

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to finally clean up the Chesapeake Bay and its tributaries.

The EPA must require the state to detail how it intends to implement the plan.

Response

Please refer to Section 8 of the final TMDL which outlines EPA's evaluation of the jurisdictions' watershed implementation plans.

60.4 - USE OF EPA'S AUTHORITY TO IMPROVE MD'S WIP

Comment ID 0767.001.001

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Please accept the enclosed letters in support of a strong, effective Watershed Implementation Plan (WIP) being developed by the state of Maryland. The Chesapeake Bay Foundation and other groups have been working diligently to educate the citizens of Maryland about the importance of and opportunity presented by the WIP. The enclosed letters demonstrate that Marylanders are concerned about water quality and want to see your agency hold a firm line by enforcing the Total Maximum Daily Load and the WIP allocations.

Thank you for this opportunity to provide comments. We look forward to seeing a comprehensive, detailed and enforceable final product.

Response

Thank you for your comments and support for EPA's Chesapeake Bay TMDL.

Please see the response to comment 0067.1.001.009 and Section 8 of the TMDL report for EPA's rational and methodology for evaluating and backstopping the jurisdictions' WIPs.

For discussion of accountability and possible federal actions, please see the response to comment 0110.001.005.

Shawn Garvin, Administrator for EPA's Mid-Atlantic Region (Region 3), is firmly committed to establishing a scientifically robust and legally defensible Bay TMDL by December 30, 2010. The TMDL establishes the loadings necessary to allow the Bay to meet applicable water quality standards and restore designated uses.

Comment ID 0767.001.002

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am writing to ask you to use your position as EPA Administrator to push Maryland to have all the proper measures in place to achieve clean water by 2020. The EPA must require Maryland to detail how it intends to implement these measures (funding and regulatory issues should be spelled out).

Your actions will help determine whether our state succeeds in restoring clean water to the bay. Thank you and I look forward to hearing from you.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.003

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I urge you to enforce Clean Water Act standards and hold Maryland and Virginia accountable for cleaning up the Chesapeake Bay. If my state does not meet its requirements for a clean-up plan, EPA should take the following actions:

- Improve pollution standards from point sources;
- Rewrite or deny pollution discharge permits; and/or
- Assume responsibility for Maryland and Virginia's Water.

State's like Maryland and Virginia need to play their part in cleaning up the Bay. Please use EPA to help make that happen.

We are looking forward to your response.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.004

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.005

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.006

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.007

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years Maryland has worked to clean our waters but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity to ensure the establishment of effective programs, incentives and penalties to finally clean-up the Chesapeake Bay and its tributaries.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.009

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Our family supports clean water in our community and Chesapeake Bay. I ask you to use your position as EPA administrator to push Maryland to improve its draft plan ensuring necessary actions will be in place to achieve clean water by 2020.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.010

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I'm really worried about the Chesapeake Bay. There's no place else like it in the country, and its health is imperiled. This ecosystem of water, plants, fish, crustaceans, etc. is very delicate. Please use your position as EPA Administrator to push Maryland to improve its draft plan to achieve clean water by 2020.

We are at the tipping point. I want the Bay to be healthy when my three children are adults! Please do everything you can to protect the Bay.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.011

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I'm really worried about the Chesapeake Bay. There's no place else like it in the country, and its health is imperiled. This ecosystem of water, plants, fish, crustaceans, etc. is very delicate. Please use your position as EPA Administrator to push Maryland to improve its draft plan to achieve clean water by 2020.

We are at the tipping point. I want the Bay to be healthy when my three children are adults! Please do everything you can to protect the Bay.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.012

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years Maryland has worked to clean our waters but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean-up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point and your actions will determine to a very large degree whether we succeed in restoring clean water in the Bay or must explain to the next generation why all the fish are floating.

Thank you for your consideration, I would greatly appreciate hearing from you regarding Maryland's Watershed Implementation Plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.013

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I don't take clean water for granted. That's why I'm reaching out to ask for your help.

Maryland's progress in cleaning up the Chesapeake Bay has been extremely slow. While the state's Watershed Implementation Plan offers great promise, I fear we'll never see it implemented.

Please use the full power of your position to urge Maryland to improve its Watershed Implementation Plan, ensuring all necessary measures will be in place to achieve clean water by 2020.

We need a strong, enforceable plan, and you can help make it happen. Thank you very much for your efforts.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.015

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I support clean water in the Chesapeake Bay water shed.

Please use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020 or sooner.

It is important to my family, our community and the rest of the world that we as a community support restoring clean water in the Bay. Please let me know how you are going to help prevent the destruction of the Bay, and most importantly how to improve the Bay.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.016

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years Maryland has worked to clean our waters but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean-up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail HOW it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point and your actions will determine to a very large degree whether we succeed in restoring clean water in the Bay or must explain to the next generation why all the fish are floating.

Response

Thank you for your comments and support for EPA's Chesapeake Bay TMDL.

Please see the response to comment 0067.1.001.009 and Section 8 of the TMDL report for EPA's rationale and methodology for evaluating and backstopping the jurisdictions' WIPs.

EPA has been working with Maryland and with the other Bay jurisdictions to establish and implement the Chesapeake Bay TMDL. EPA intends to continue these collaborative efforts and to use the full scope of its authority to ensure that the Bay jurisdictions meet their Chesapeake Bay TMDL allocations and that applicable water quality standards are attained and maintained. For discussion of accountability and possible federal actions, please see the response to comment 0110.001.005.

Shawn Garvin, Administrator for EPA's Mid-Atlantic Region (Region 3), is firmly committed to establishing a scientifically robust and legally defensible Bay TMDL by December 30, 2010. The TMDL establishes the loadings necessary to allow the Bay to meet applicable water quality standards and restore designated uses.

Comment ID 0767.001.017

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I have been watching with both interest and dismay the progress or lack of it we have had in cleaning up the Chesapeake. For too long clean up efforts have been faltering for lack of any real teeth to clean up regulations. Now that there is a real chance of EPA enforceable clean up, it is more important than ever that The EPA keep on top of efforts by the states involved including Maryland. Well meaning promises by the state aren't enough. Maryland needs to spell out not just what it wants to accomplish but what it is going to do to make it happen. Specifically how it will address funding; gaps and legislative changes that will be required to make this all happen

Please use your position as EPA Administrator to have Maryland improve it's draft plan so that the 2020 goals will be reached. Perhaps I won't see it in my lifetime, but restoring the Chesapeake to the vitality it had when the country was founded would be a wonder to behold. The Bay is not just a part of Maryland Virginia and Delaware. It is part of the United States, every bit as important as the Rockies, the Gulf of Mexico or Puget Sound. It is the heart of our coastal ecosystem and the source of bounty that is found up and down the eastern seaboard. Nature will accomplish wonders if given the chance, but first we need to make that possible. Right now, you are someone who can make that happen perhaps more than anyone else. You will have our support in this process.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.018

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Please accept the enclosed letters in support of a strong, effective Watershed Implementation Plan (WIP) being developed by the state of Maryland. The Chesapeake Bay Foundation and other groups have been working diligently to educate the citizens of Maryland about the importance of and opportunity presented by the WIP. The enclosed letters demonstrate that Marylanders are concerned about water quality and want to see your agency hold a firm line by enforcing the Total Maximum Daily Load and the WIP allocations.

Thank you for this opportunity to provide comments. We look forward to seeing a comprehensive, detailed and enforceable final product.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.019

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to finally clean up the Chesapeake Bay and its tributaries.

The EPA must require the state to detail how it intends to implement the plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.020

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to clean up the Chesapeake Bay.

Please take action to require the continued cleanup under a defined implementation plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.022

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to finally clean up the Chesapeake Bay and its tributaries.

The EPA must require the state to detail how it intends to implement their plan!

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.023

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow in cleaning up the Chesapeake Bay and its tributaries.

EPA must require MD to submit detailed plans to meet goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.024

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow to clean up the Bay and Tributaries. EPA must require MD to submit a detailed plan to meet the goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.025

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow. Cleaning up the Chesapeake and tributaries. EPA must require MD to submit detailed plans to meet goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.026

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow in cleaning up the bay and its tributaries. EPA must require MD to submit detailed plans to meet goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.027

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow, in cleaning up the Chesapeake Bay and its tributaries. EPA must require MD to submit detailed plans to meet goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.028

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow in cleaning up the Chesapeake Bay and its tributaries. EPA must require Maryland to submit detailed plan to go further.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.029

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow in cleaning up the Chesapeake Bay and its tributaries. EPA must require MD to submit detailed plans to meet goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.030

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too clean up the Chesapeake Bay and its tributaries. EPA must require MD to submit detailed plans to meet goals.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.031

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to clean up the Chesapeake Bay and its tributaries. The EPA must require the state to detail how it intends to implement the plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.032

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to clean-up The Chesapeake Bay and its Tributaries. The EPA must require the state to detail how it intends to implement the plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.033

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

There needs to be more progress in cleaning up the Chesapeake Bay. The EPA should require the state of Maryland to give specifics on how this will be done.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.034

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow to clean up the Chesapeake Bay and its tributaries.

The EPA must require the state to detail how it intends to implement the plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.035

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been painfully slow toward clean-up of the Chesapeake Bay and its tributaries. The EPA must require the state to detail how it intends to implement the plan.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.036

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Progress has been too slow in cleaning up the Chesapeake Bay and its tributaries. EPA must make the state spell out in detail just how goals will be met.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.038

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

The EPA has a responsibility to require details of states' plans to improve and protect the watershed.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.039

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

We are big supporters of clean water, in the Chesapeake Bay and in our community.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

We ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

We appreciate all your work and are looking forward to your strong leadership in this area. Thank you for your time.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.040

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of a clean environment, especially clean water in Maryland and my community. As you may know

Maryland has labored to clean our waters but the results of significant quality has been dragging. Presently, with the Watershed Implementation Plan, the EPA has the prime window to bring about greater accountability to clean up our waterways sooner rather than later.

Sure Maryland has "passed" quality standards from the EPA, but we Maryland citizens need more teeth in this proposal to improve the situation. The EPA needs to mandate details on the plan of execution and monitor them as they are rolled out.

I am asking you with the gift and privilege of the position you hold to improve the draft plan to ensure the best quality for our waters by 2020.

You know we already have the technology, we just need a comprehensive plan that will ensure excellent execution and make all citizens of Maryland proud and even boastful of our waterways - for this generation and the ones to come.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.041

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a strong supporter of clean water, both in my community and in the Chesapeake Bay. Progress by Maryland to clean the waters has been very slow, but now that the state has a Watershed Implementation Plan, the EPA has the ability to ensure the establishment of progress, incentives, and penalties to finally clean-up the Bay and its tributaries.

The EPA must require the state to detail how it intends to implement the plan. The states must address the "funding gaps" and "regulatory changes" necessary to meet plan goals.

I am asking you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020, or well before.

We have the technology to address the problem - we just need a strong, enforceable plan. We have to succeed in restoring clean water in the Bay so we don't have to explain to our grandchildren why the fish are floating.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.042

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

As a supporter of clean water in the Chesapeake Bay and in my community, I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020. The EPA must require the state to detail how it intends to implement the plan. For example, the State must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality.

We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan. We are at the tipping point --your actions will determine to a very large degree whether we, succeed in restoring clean water in the Bay, or are forced to explain to our next generation why the fish are floating.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.043

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years Maryland has worked to clean our waters but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean-up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point and your actions will determine to a very large degree whether we succeed in restoring clean water in the Bay or must explain to the next generation why all the fish are floating.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.044

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water. in the Chesapeake Bay and in my community. For years Maryland has worked to clean our waters, but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean-up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020.

We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point and your actions will determine to a very large degree whether we succeed in restoring clean water in the Bay or must explain to the next generation why all the fish are floating.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.045

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I support a clean environment, both in the Chesapeake Bay and in my community. For years, Maryland has worked

hard to clean our waters, but progress has slowed. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity to ensure the establishment of effective programs, incentives, and penalties to finally clean-up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water.

We know what the problems are. We have the technology to address the problem. We just need to be guaranteed a strong enforceable plan.

We are at the tipping point and your actions will determine, to a very large degree, whether we succeed in restoring clean water in the Bay or must explain to my generation and those after me why all the fish are floating and oyster populations declining.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.046

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years, Maryland has worked to clean our waters, but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance that Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020. We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point, and your actions will determine to a very large degree whether we succeed in restoring

clean water in the Bay for this and the next generation.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.047

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a big supporter of clean water, in the Chesapeake Bay and in my community. For years, Maryland has worked to clean our waters, but progress has been painfully slow. Now, with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentives and penalties to finally clean up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance that Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020. We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point, and your actions will determine to a very large degree whether we succeed in restoring clean water in the Bay for this and the next generation.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.048

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am a resident in Montgomery County, MD affected by the water condition in our area.

Please support by funding the WIP - we trust you will help represent our voice.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.049

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I am very concerned about the Chesapeake Bay and its tributaries. The Bay is heavily polluted and unless something is done soon, the Bay will die.

The State's first Watershed Implementation Plan has been developed. The EPA must put pressure on Maryland to say how it intends to work this plan. This is a golden opportunity to use your position in the EPA to see that this state will implement the necessary measures to save the Chesapeake and its tributaries.

Clean water is good for the fish, the crabs and us!

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.050

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

Clean water is important to me, especially in the Chesapeake Bay and in my community. Progress to clean our waters has been halting until now, with the development of the state's first Watershed Implementation Plan. The EPA has a huge opportunity to ensure the establishment of effective programs, incentives and penalties that will finally clean-up the Chesapeake Bay and its tributaries.

Citizens of MD need assurance that this W.I.P. will come to fruition. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "funding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring all the necessary measures will be in place to achieve clean water by 2020. We know what the problems are. We have the technology to address the problem. We just need a strong, enforceable plan.

We are at the tipping point and your actions will determine to a very large degree whether we succeed in restoring clean water in the Bay or whether the polluted Bay kills all the fish.

Response

Please see the response to comment 0767.001.016.

Comment ID 0767.001.051

Author Name: Campaign Mass

Organization: Chesapeake Bay Foundation (CBF)

I support clear water in the Chesapeake Bay and in my community. Maryland has worked hard to clean our waters but progress is very slow. Now with the development of the state's first Watershed Implementation Plan, the EPA has the opportunity of a lifetime to ensure the establishment of effective programs, incentive and penalties to finally clean up the Chesapeake Bay and its tributaries.

Although Maryland received a passing grade on its plan from the EPA, citizens need assurance Maryland's proposal will become a reality. The EPA must require the state to detail how it intends to implement the plan. For example, the state must address the "finding gaps" and "new regulatory/legislative changes" necessary to meet plan goals.

I ask you to use your position as EPA Administrator to push Maryland to improve its draft plan ensuring necessary measures will be in place by 2020 to achieve clean water.

We know what the problems are and how to address them with the proper technology. We need strong plan to make it happen.

Your actions will determine whether we succeed in restoring clean water in the Bay. I want the Bay to be clean and there for generations to come.

Response

Please see the response to comment 0767.001.016.

Attachment 1. Figures, Graphs, and Tables for Response to Comments for the Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment.

I. Figures, Graphs and Tables for Comment ID 0230.1.001.034

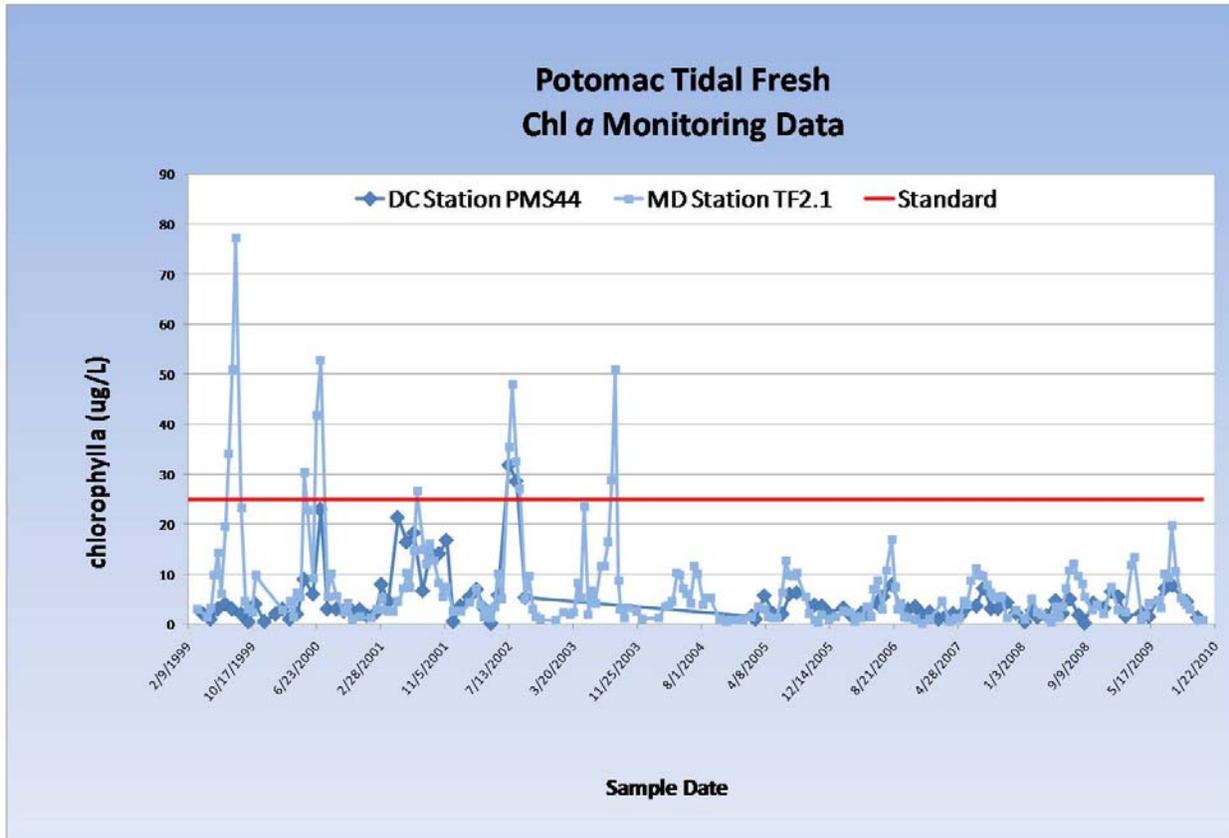


Figure 1: Potomac Tidal Fresh Chl a Monitoring Data.

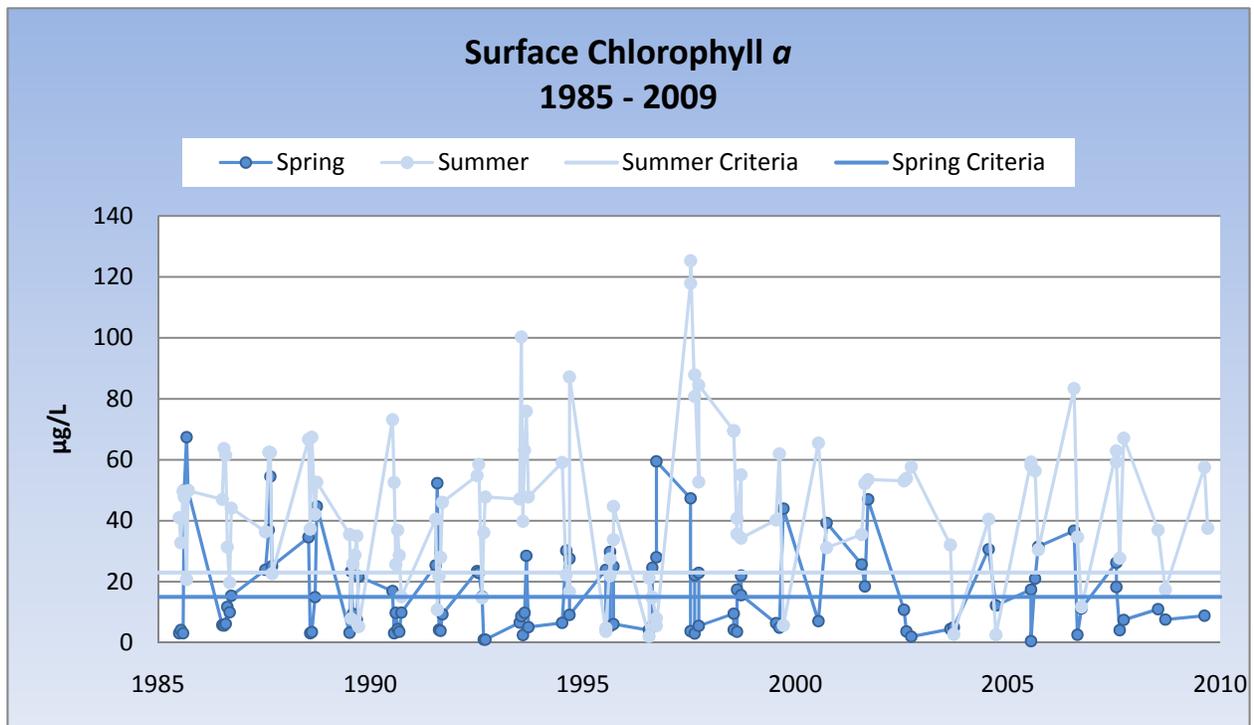


Figure 2: Surface Chlorophyll *a*.

II. Figures, Graphs and Tables for Comment ID 0288.1.001.016

Equation 1: Mathematical equations in the section Chesapeake Bay Water Quality Model Calibration:

$$MD = \frac{\sum(O - P)}{N}$$

$$AMD = \frac{\sum|O - P|}{N}$$

$$RD = \frac{\sum|O - P|}{\sum O}$$

Chlorophyll Summary Statistics for James River (Chesapeake Bay Water Quality Model Calibration)

Version of the Chesapeake Bay Water Quality Model	Mean Difference, ug/L	Absolute Mean Difference, ug/L	Relative Difference, %
1987 Original Model	0.24	8.64	74.1
1997 Virginia Tributaries	-4.84	9.17	78.6
2002 Model	-2.47	7.74	66.4
2010 Model	-0.72	7.13	60.8

Table 1: Chlorophyll Summary Statistics for James River (Chesapeake Bay Water Quality Model Calibration).

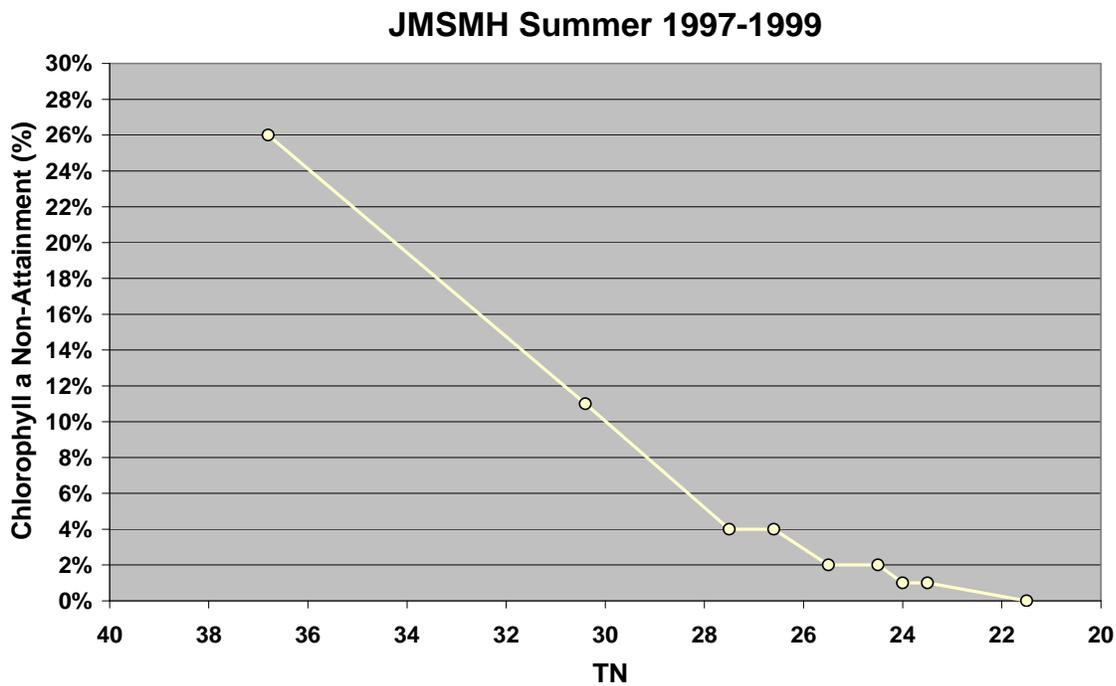


Figure 3: JMSMH Summer 1997-1999.

Equation 2: Mathematical equations from the Lack of Criteria for Acceptance of Model Predictions Poor Chlorophyll a Calibration section:

$$MD = \frac{\sum(O - P)}{N}$$

$$AMD = \frac{\sum|O - P|}{N}$$

$$RD = \frac{\sum|O - P|}{\sum O}$$

Chlorophyll Summary Statistics for James River (Lack of Criteria for Acceptance of Model Predictions Poor Chlorophyll a Calibration)			
Version of the Chesapeake Bay Water Quality Model	Mean Difference, ug/L	Absolute Mean Difference, ug/L	Relative Difference, %
1987 Original Model	0.24	8.64	74.1
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2010 Model	-0.72	7.13	60.8

Table 2: Chlorophyll Summary Statistics for James River (Lack of Criteria for Acceptance of Model Predictions Poor Chlorophyll a Calibration).