

EPA INTERIM EVALUATION OF FEDERAL AGENCIES' 2014-2015 WATER QUALITY MILESTONES

The U.S. Environmental Protection Agency (EPA) is providing an assessment of the progress made by federal agencies toward meeting the 2014-2015 water quality milestones set forth under the [Chesapeake Bay Executive Order 13508 \(EO\) Strategy](#) and subsequent EO 13508 Action Plans. These activities support the Chesapeake Bay jurisdictions in meeting their 2014-15 two-year milestones and Watershed Implementation Plan (WIP) commitments. A detailed report on the 2014-2015 EO programmatic water quality milestone achievements can be reviewed at: <http://executiveorder.chesapeakebay.net/>.

The Chesapeake Bay restoration operates through a measurable accountability framework. This framework includes the WIPs, annual progress reviews, and two-year milestones. Federal agencies have the opportunity to adaptively manage their plans and make necessary adjustments to stay on track within this framework and at the midpoint assessment. In 2016, EPA will evaluate whether federal agencies achieved their 2014-2015 water quality milestones and have commitments to achieve the Chesapeake Bay Program (CBP) partnership goal of practices in place by 2017 that would achieve 60% of the nitrogen, phosphorus and sediment reductions necessary to achieve water quality standards in the Bay compared to 2009.

Section 117(f) of the Clean Water Act (CWA) directs federal agencies that own or operate a facility within the Chesapeake Bay watershed to participate in regional and sub-watershed planning and restoration programs. In addition, in the EO Strategy, federal agencies committed to participate in pollutant reduction programs and to implement policies and programs to comply with Section 438 of the Energy Independence and Security Act (EISA 438) to achieve the goal of a restored Chesapeake Bay. In 2011, EPA issued the [Guide for Federal Lands and Facilities' Role in Chesapeake Bay Jurisdictions' Phase II Watershed Implementation Plans](#), which describes EPA's expectations for federal agency coordination with the Bay jurisdictions and participation in WIP implementation. EPA also developed the [Guide for Chesapeake Bay Water Quality Two-year Milestones](#), which describes EPA's expectations for federal agency development of numeric and programmatic water quality milestones and coordination with the Bay jurisdictions in the development of such milestones for individual federal facilities.

There have been some improvements in the level of engagement between Bay jurisdictions and federal agencies, but more interaction and coordination is needed related to planning, implementing and reporting best management practices (BMPs) on federal land in particular.

2014-2015 Milestone Achievements

Cross-Sector Activities and Support of State WIP and Milestone Commitments

- In June 2014, EPA completed assessments of progress made toward implementation of the Bay jurisdictions' and federal agencies' 2012-2013 milestones and the jurisdictions' and federal agencies' commitments for the 2014-2015 milestones.
- EPA continued to implement the Chesapeake Bay Enforcement Strategy developed in 2010. For FY14, EPA conducted 13 Concentrated Animal Feeding Operation (CAFO) inspections, 20 Municipal Separate Storm Sewer System (MS4) inspections, 13 construction stormwater inspections and 12 industrial stormwater inspections. EPA completed 97 National Pollutant

Discharge Elimination System (NPDES) administrative enforcement actions in the Chesapeake Bay Watershed in FY14. Under the Clean Air Act, EPA entered into one judicial settlement in the Chesapeake Bay Airshed that will result in nitrogen oxide emission reductions.

- To assist the Bay jurisdictions with their offset and trading programs, EPA issued six technical memoranda in 2014 and will issue an additional four in 2015. These technical memoranda serve as guides for development offset and trading programs consistent with EPA's expectations as described in the Chesapeake Bay Total Maximum Daily Load (Bay TMDL).
- In support of Bay jurisdictions' WIPs, the U.S. Department of Defense (DoD) submitted progress and historical BMP data and worked with key partners to update installation land use information and to improve available tools for installations to plan for future load reductions.
- EPA issued the new Chesapeake Bay Facility Assessment and Scenario Tool (BayFAST) and completed multiple training webinars in FY14. BayFAST is a scenario assessment tool that was developed for use by federal agencies, local governments and other facility level stakeholders to plan BMPs at the individual parcel level. Providing the ability to plan implementation at the parcel/facility level assists stakeholders with determining effective implementation to support Bay jurisdictions and partners in meeting the Bay TMDL targets.
- The Lower Susquehanna River Watershed Assessment (LSRWA) was led by a federal inter-agency study team composed of the U.S. Army Corps of Engineers (ACOE), EPA, and the U.S. Geological Survey (USGS), who were authorized to analyze the movement and impacts of sediment and associated nutrient loads from the lower Susquehanna watershed, including behind the Conowingo Dam. The LSRWA results are leading to a reevaluation of the role of sediment in the Bay as well as helping further development of watershed modeling scenarios and sediment management strategies.
- Within the U.S. Department of Agriculture (USDA), the Forestry Service (FS) and Natural Resource Conservation Service (NRCS) completed the final Working Land Conservation Strategy. This strategy includes an outcome to permanently protect an additional 2 million acres from 2010-2025, including 695,000 acres of high value forest land. NRCS and FS collaborated with Bay jurisdictions and other partners to produce the strategy, which emphasizes the importance of protecting working lands to support environmental, economic, and community goals in the Chesapeake Bay watershed, including water quality goals and the Bay TMDL.
- Federal agencies, led by the USGS, worked with partners to develop options to sustain water-quality monitoring to support assessment of Bay conditions and potential improvements to the Bay. The partners are also examining ways to meet the additional monitoring needs for the 2014 Chesapeake Watershed Agreement.
- EPA initiated review of 58 individual wastewater permits (50 in Region 3 and 8 in Region 2), five General Permits for MS4s, one statewide industrial stormwater permit, two construction General Permits, 25 individual CAFO permits and one CAFO General Permit. EPA objected to 14 draft wastewater permits in the watershed.

Urban/Suburban Stormwater

- EPA provided technical and financial assistance to municipalities to develop public-private partnerships to help reduce the cost of stormwater controls.

- EPA completed assessments of the stormwater programs in Maryland and Delaware in 2014.
- EPA provided financial support to localities and other entities for the design and implementation of green infrastructure through the Green Streets grant program administered by the Chesapeake Bay Trust.
- EPA and the District Department of Environment (DDOE) continued to coordinate the District of Columbia Stormwater Memorandum of Understanding, which also involves National Park Service (NPS), General Services Administration (GSA), and DoD. Over the course of several meetings, participants have discussed DDOE's stormwater regulations, District MS4 permit requirements, stormwater retention credits and stormwater fees.
- DoD took steps to develop and implement BMP requirements on its facilities under the Bay TMDL. Installations in Virginia and Pennsylvania are working to complete Chesapeake Bay TMDL pollution reduction plans using data from the BMP Opportunity Assessments. DoD will also develop plans in Maryland pending issuance of the Maryland MS4 Phase 2 General Permit.
- DoD has resolved nearly all issues related to the accurate calculation of stormwater fees for its facilities in the District of Columbia, and corrected fees have been paid to DC Water.
- The U.S. Department of Transportation (DOT) provided support for integrated housing, transportation and water infrastructure planning, as well as planning for sustainable transportation by metropolitan transportation planning organizations and state departments of transportation. DOT awarded funding to planning and construction projects in the Chesapeake Bay watershed area as part of the Transportation Investment Generating Economic Recovery (TIGER) 2014.
- DoD completed a stormwater treatment wetland at Naval Support Activity Dahlgren, which will reduce polluted runoff entering Upper Machodoc Creek.

Wastewater Treatment Plants and Onsite Systems

- EPA assisted the Bay jurisdictions' in finalizing an agreement to share data on advanced onsite technologies. The data sharing under the Memorandum of Cooperation, signed by Delaware, Maryland, Pennsylvania, Virginia and West Virginia, will streamline the approval process within each state to use these advanced technologies for controlling nitrogen discharges from septic systems.
- EPA provided technical assistance to wastewater treatment plants to optimize their operations to reduce energy and nutrient discharges.
- DoD continued with upgrades to achieve target effluent concentrations at three significant wastewater treatment plants to meet Bay TMDL allocations.

Atmospheric Nitrogen Deposition

- EPA issued rulemakings designating three areas in Pennsylvania as nonattainment for the 2012 PM_{2.5} National Ambient Air Quality Standards (NAAQS). These rulemakings will help reduce nitrogen deposition in the Bay.
- EPA issued the Tier 3 Light Duty Vehicle Emission and Fuel Standards final rule.

Agriculture

- EPA completed animal agriculture program assessments for Pennsylvania, Virginia and New York.

- The USDA Farm Service Agency announced an additional \$5 million for Chesapeake Bay jurisdictions to augment their Conservation Reserve Programs targeted at riparian forest buffers.
- NRCS continued to support voluntary actions by farmers and landowners to improve water quality by providing financial and technical support through various USDA programs including new ones like the Agricultural Conservation Easement Program and the Resource Conservation Partnership Program.

Improvements to Meet the 2014-2015 Milestones and Maintain WIP Progress

Cross-Sector Activities

- Improve coordination with the Bay jurisdictions on setting milestone commitments and reporting progress.
- Report BMPs implemented in 2015 on federal facilities to EPA's Chesapeake Bay Program Office (CBPO) and Bay jurisdictions using the appropriate reporting templates.
- Review and improve historical BMP record for all sectors, including wastewater discharge information. Federal agencies should submit draft historical data, along with documentation of methods and assumptions, to Bay jurisdictions and CBPO by June 15, 2015, and final historical data by August 31, 2015, as part of the CBP partnership's midpoint assessment of the Bay TMDL.
- Secure CBP partnership approval of the Bay jurisdictions' enhanced BMP tracking, verification and reporting programs and assist federal agencies with conformance.
- EPA will deliver the working draft revised Chesapeake Bay Water Quality and Sediment Transport Model and Chesapeake Atmospheric Deposition Model to the CBP partnership for evaluation and refinement.
- In July 2015, the Bay jurisdictions are expected to finalize specific facility-level numeric reduction targets that meet the CBP partnership's goal of all practices in place by 2025 that are necessary to achieve water quality standards in the Chesapeake Bay and 2016-2017 two-year milestones. By November 1, 2015, federal agencies are expected to submit 2016-2017 two-year milestone implementation forecasts to CBPO and the Bay jurisdictions.
- EPA will continue to emphasize the importance of the federal facility data submission to all Bay jurisdictions for 2015 to ensure that information needed to complete assessments of BMP progress is obtained.
- EPA will work with the Bay jurisdictions to prioritize EPA grant awards to address high priorities identified within WIPs and two-year milestones to meet the Bay TMDL allocations.

Urban/Suburban Stormwater

- EPA will continue to work with the Bay jurisdictions to eliminate permit backlogs and issue permits consistent with the assumptions and requirements of applicable Bay TMDL wasteload allocations.

Wastewater Treatment Plants and Onsite Systems

- EPA will continue to provide technical assistance to wastewater treatment plants to optimize their operations to reduce energy and nutrient discharges and will work with jurisdictions upon request.

Agriculture

- EPA will complete Animal Agriculture Program Assessments in Delaware, Maryland and West Virginia and an animal feeding operation sub-watershed review.
- USDA NRCS will continue to support voluntary actions by farmers and landowners by providing financial and technical assistance through several funding programs.

Expectations and Recommendations for Development of the 2016-2017 Milestones

- Establish BMP and programmatic 2016-2017 milestones to achieve 2017 targets established by the Bay jurisdictions using the forthcoming federal targets protocol agreed upon by the Federal Facilities Targets Action Team (FFTAT).
- Use BayFAST or other acceptable model and follow the new federal targets protocol for planning BMP implementation scenarios that can be used to achieve federal targets.
- Continue the ongoing work of the FFTAT to reestablish Bay jurisdiction approaches for calculating facility-level reduction targets. Use FFTAT to resolve additional issues such as compiling baseline information (e.g., land uses), using BayFAST or other acceptable modeling tool to plan BMPs to achieve targets and procedures used for reporting progress.
- The CBP Federal Facilities Team, coordinated by EPA, will provide a forum for agency environmental coordinators to communicate with EPA, each other, and the Bay jurisdictions to achieve clarity of Bay TMDL-related expectations and find efficient ways to manage the collection and provision of needed information.

Summary of Federal Facility BMP Implementation Data in 2014 Progress Submission

Summary of Federal Agency Submission of BMP Information to Bay Jurisdictions during the 2014 Data Call for Progress BMPs: The chart below provides a summary of federal agency BMP progress submissions by Bay jurisdiction. It reflects some improvement from past years but also demonstrates inconsistency and timeliness issues in most federal agencies' reporting the required data to Bay jurisdictions. EPA continues to work with the federal agencies and Bay jurisdictions to improve annual progress reporting.

| Agency | DC | MD | NY | PA | VA | WV |
|-----------------|----|----|----|----|----|----|
| AOC | | | | | | |
| DHS | | | | | | |
| DOC - NOAA | | | | | | |
| DOI - USGS | | | | | | |
| DOI - FWS | | * | | * | * | * |
| DOI - NPS | * | * | | * | * | * |
| DoD (DLA, etc.) | | | | | | |
| DoD – Air Force | | | | | | |
| DoD - Army | * | * | | * | * | |
| DoD - ACoE | | | | | | |
| DoD - Marines | * | | | | * | |
| DoD - Navy | * | * | | | * | |
| EPA | | * | | | | |
| GSA | | | | | | |
| NASA | | | | | * | |
| Smithsonian | * | * | | | * | |
| USDA | | * | | | | |
| USDA - FS | | | | | | |

Key: Green – Reported or “none to report” sent
 * - submitted by Oct. 1 deadline or granted extension date
 Grey – No known federal facilities in this jurisdiction
 Yellow – BMP inventory underway
 Red – No information provided/available

Below are examples of BMPs implemented on federal land during 2014 that were reported to the Bay jurisdictions and credited for progress toward achieving reduction targets (Note: There were instances where federal BMP data reported to the jurisdictions was not included in jurisdiction annual reports or it was reported by the jurisdictions in a manner that did not allow the CBP to identify the data):

District of Columbia – 16.5 acres of urban lands treated by stormwater BMPs reported by several federal agencies. DDOE plans to continue to work with federal partners to collect historic BMP implementation and maintenance data in 2015.

Delaware – No federally managed land in the Bay jurisdiction’s portion of the watershed.

Maryland – 10.83 acres of urban lands treated by stormwater BMPs reported by the U.S. Department of the Navy (Navy) and USDA. Maryland Department of the Environment plans to continue to work with federal facilities to gather more implementation data in 2015.

New York – No BMPs reported by the jurisdiction.

Pennsylvania – No BMPs reported by the jurisdiction.

Virginia – 320.5 acres of urban lands treated by stormwater BMPs reported by several federal agencies. They also had 213 tons of street sweeping and 44 septic systems pumped out on federal lands.

West Virginia – 67 acres of agricultural and forest harvesting BMPs reported by several federal agencies.

Example of 2014 Federal Facility BMP Implementation Progress Data Success Stories:

- NASA-Langley and DoD submitted quality data to Virginia.
- Virginia reached out to all military installations within an MS4 requesting data records for historical implementation, and will continue working with installations that provide data over the coming months.
- GSA and Navy performed inventories for many of their significant facilities within the District of Columbia. These records are currently being cross-checked with existing District of Columbia practice records to ensure proper reporting to the CBP partnership in 2015 and beyond.
- Navy and Army submitted a significant amount of BMP practice data to Maryland.

Issues with 2014 Federal Facility BMP Implementation Progress Data

- Practice reporting templates were provided to federal facilities in each Bay jurisdiction. These reporting templates are compatible with state and CBP partnership reporting needs. Some facilities chose not to use these templates, making it difficult, and in some cases impossible, for the Bay jurisdictions to report federal facility practices.
- A number of federal facilities and agencies with significant land holdings in Maryland, the District of Columbia and Virginia did not report any practice data.
- Some data was not submitted in time to be adequately reviewed by the Bay jurisdictions, and so was not reported for this year.
- While some federal agencies (DoD in particular) have worked extensively with the Bay jurisdictions, other federal agencies and facilities have had little or no communication with their jurisdictional partners.

Ideas for Improving Federal Facility Progress Data

- Federal agencies and department leaders should encourage facility managers to participate and submit BMP implementation data.
- Federal agencies can participate on the FFTAT and the Federal Facilities Team to increase their communication with the jurisdictions. Increased communication of partner challenges, expectations and reporting processes will ensure consistent data input and success towards

federal leadership by example. While some agencies and facilities are providing data to the jurisdictions, all federal agencies and facilities should be encouraged to reach out to their jurisdictional partners to learn about the reporting process and provide data in the future.

- Federal agencies and facilities can submit data using the federal facility templates provided by each jurisdiction. Jurisdictions remain flexible with the mechanisms to submit data and are open to discuss with any federal agency, department or manager the format for reporting the data.
- It is also anticipated that developing federal facility targets in 2015 and expected improvements to BayFAST will assist with progress reporting for 2016 and 2017. In addition, the federal lands GIS data layer will be updated for use with Phase 6 CBP model and Phase III WIPs in 2018.