

West Virginia’s Trading and Offset Programs Review Observations

I. Summary of Program Characteristics and Regulatory Status

For the common trading and offset program elements discussed in Appendix S of the Chesapeake Bay TMDL, Table 1 distinguishes between trading (T) and/or offset (O) provisions, categorizes the degree to which West Virginia’s program addresses each element, and illustrates whether the program is designed to support Point to Point source transactions, Nonpoint to Point source transactions, Nonpoint to Nonpoint source transactions and/or Point source to Nonpoint source transactions.

Table 1. West Virginia Trading and Offset Program Summary Table

Element	Types of Transactions							
	Point Source to Point Source		Nonpoint Source to Point Source		Nonpoint Source to Nonpoint Source		Point Source to Nonpoint Source	
Trading (T) /Offset(O)	T	O	T	O	T	O	T	O
Authority	●	●	◐	◐	○	○	○	○
Baselines (for credit generators)	●	●	●	●	●	●	●	●
Minimum Controls	●	●	●	●	○	○	○	○
Eligibility	●	●	●	●	○	○	○	○
Credit Calculation and Verification	●	●	●	●	○	○	○	○
Safeguards	●	●	●	●	○	○	○	○
Certification and Enforceability	●	●	●	●	○	○	○	○
Accountability and Tracking	●	●	◐	◐	○	○	○	○
Nutrient Impaired Segments	◐	◐	◐	◐	◐	◐	◐	◐
Credit Banking	●	●	●	●	○	○	○	○
Growth	×	●	×	●	×	●	×	●

- Necessary measures not in place
- ◐ Partial (e.g., Legislation drafted or steps have been taken to implement but not fully in place, some details still to be determined but framework is largely established)
- Jurisdiction has measures in place and in effect
- Jurisdiction is evaluating the issue but has taken no formal measures to implement anything specifically
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II. Summary of Review Observations

On the basis of interviews and review of statutes, regulations, policies and program documents related to the jurisdictions' trading and offset programs, EPA has drafted the following observations. Tier 1 are classified as statutory or regulatory conflicts that EPA expects to be addressed by the jurisdiction in order to maintain consistency with the policies, definitions and elements described in Section 10 and Appendix S of the Chesapeake Bay TMDL. Tier 2 is classified as program recommendation that EPA recommends should be addressed in order to strengthen the jurisdictions' trading and offset programs.

A. Programs Recommendations Common to All Jurisdictions

1. Jurisdictions' definitions of trading ratios, offsets, credit, trading, etc. should be consistent with federal definitions. Some jurisdictions use the terms "trading" and "offsetting" interchangeably. See Section IV.1.
2. Interstate and intrabasin trades and offsets should be evaluated by the jurisdictions for potential inclusion in their trading and offset programs. See Section IV.10.
3. Local governments' data and information should continue to be integrated into state tracking and accounting systems. See Section IV.8.
4. Stormwater offsets programs are being evaluated and developed in many jurisdictions. These programs should be consistent with the Chesapeake Bay TMDL and EPA regulations, policy, and guidance. See Section IV.1.
5. Several jurisdictions are considering developing or expanding their current programs. The jurisdictions should continue to develop guidance and methodologies to address meeting baseline for point and nonpoint source sectors including consideration of the use of non-traditional Best Management Practices (BMPs) such as algal scrubbers, oyster aquaculture, etc. EPA suggests that the jurisdictions consider incorporating the retirement of credits and use of net improvement offsets in this guidance and methodology. See Sections IV.2 and 5.
6. Jurisdictions expressed interest in finding a good way to use stormwater BMPs to offset nonpoint sources such as new septic and nonregulated agriculture. The jurisdictions should continue to explore the potential use of that type of offset. See Sections IV.2 and 5.
7. Updating enforcement policies and procedures should continue and include, but not be limited to, items such as inspectors' access to off-site areas where credits or offsets are generated and compliance determination methodology. See Section IV.7.
8. Jurisdictions should continue to develop tracking and accounting systems for new or increased loads and offsets for those loads. These systems should be transparent and accessible to the public. See Section IV.8.

9. Jurisdictions should ensure that adequate resources are available to fully implement the developing trading and offset programs. See Section V.

B. West Virginia Specific Issues

Tier 1 – Statutory or Regulatory conformance

1. Appendix S of the TMDL expects pollutant loads from new or increased discharges to be offset in the event that the jurisdiction did not set aside allocations for new growth. West Virginia's final Phase I WIP did not include an allocation for new growth. How will West Virginia accommodate new growth for both point and nonpoint sources? See Section IV.1.

Tier 2 – Program recommendation

1. West Virginia may need new regulations to allow credit generation by agriculture sources. The West Virginia Department of Environmental Protection (WVDEP) and the West Virginia Department of Agriculture (WVDA) are working together to evaluate the need for further regulations. See Section IV.1.

III. History and Overview of West Virginia's Trading and Offset Programs

WVDEP is currently evaluating the need for a formal trading and offset program beyond implementing case-by-case requests by incorporating them into NPDES permits. If WVDEP decides that a formal trading and offset program is necessary, it will define baseline conditions and meet the common elements described in the Chesapeake Bay TMDL (e.g., trades or offsets would be implemented to ensure no net increase in nutrient loading to Chesapeake Bay watershed). West Virginia needs a baseline definition whether or not a formal program is established, however. The wasteload allocations (WLAs) established in the Chesapeake Bay TMDL specifically essentially act as a baseline for individual significant wastewater treatment plants that received individual WLAs. West Virginia has provided an overview of their management of trading and offsets in its draft Phase II WIP, with a particular focus on baseline requirements.

IV. Detailed Evaluation of West Virginia's Trading and Offset Programs Conformance with the 2010 Chesapeake Bay TMDL

1. Authority

Necessary measures are partially in place for point source users. See Section II.B.1 and Sections II.A.1 and 4.

The West Virginia Legislature, through Senate Bill 715 and under West Virginia Code § 22-11-30, the Chesapeake Bay Restoration Initiative directed WVDEP to establish a nutrient trading and offset program by June 1, 2011. WVDEP requested an 18 month extension to perform this work.

2. Baseline (for credit generators)

The WLAs established in the Chesapeake Bay TMDL effectively identify baselines for individual significant wastewater treatment plants that received individual WLAs in the TMDL. West Virginia has provided an overview of its management of trading and offsets in its draft Phase II WIP, with a particular focus on baseline requirements. See Section II.B.1 and Sections II.A.5 and 6.

WVDEP is currently evaluating the need for a formal trading and offset program. WVDEP may draw upon the draft statewide nutrient trading program that was developed as a part of the WV Chesapeake Bay Tributary Strategy (see <http://wvwri.nrcce.wvu.edu/programs/pwqb/index.cfm>) if and when it develops a formal trading/offset program.

3. Minimum Controls Required for Credit Purchasers

WVDEP is currently evaluating the need for a formal trading and offset program. WVDEP may draw upon the draft statewide nutrient trading program that was developed as a part of the WV Chesapeake Bay Tributary Strategy (see <http://wvwri.nrcce.wvu.edu/programs/pwqb/index.cfm>) if and when it develops a formal trading/offset program. See Section II.B.1.

4. Eligibility

WVDEP is currently evaluating the need for a formal trading and offset program. WVDEP may draw upon the draft statewide nutrient trading program that was developed as a part of the WV Chesapeake Bay Tributary Strategy (see <http://wvwri.nrcce.wvu.edu/programs/pwqb/index.cfm>) if and when a formal trading/offset program is developed. WVDEP acknowledges the need to consider aggregators if demand is great enough from permittees. See Section II.B.1.

5. Credit Calculation and Verification

WVDEP is currently evaluating the need for a formal trading and offset program. WVDEP may draw upon the draft statewide nutrient trading program that was developed as a part of the WV Chesapeake Bay Tributary Strategy (see <http://wvwri.nrcce.wvu.edu/programs/pwqb/index.cfm>)

if and when it develops a formal trading/offset program. If West Virginia were to develop a formal program, calculation of credits would be based on delivered loads to the Chesapeake Bay. See Section II.B.1.

6. Safeguards

WVDEP is currently evaluating the need for a formal trading and offset program. If and when West Virginia develops a formal trading and offset program, it will design that program to protect numeric water quality criteria or narrative biological criteria in local waters while maintaining no net increase of delivered nutrient or sediment loading to the Chesapeake Bay. Any future West Virginia trading or offset program will be designed such that detrimental water quality impacts will not be allowed. No formal policies with respect to reserves or uncertainty factors have been developed by WVDEP. There is the potential in West Virginia for trades and offsets to involve reserves or uncertainty factors that may dictate tradable credits and offsets greater than the new or increasing load. See Section II.B.1.

7. Certification and Enforceability

To be determined if/when WVDEP develops a formal trading/offset program.

WVDEP is currently implementing case-by-case requests for offsets or trades via NPDES permits (example: Jefferson County PSD permit) and requires documentation and control requirements to be included in those NPDES permits. WVDEP's NPDES Program will ensure that the permittee remains accountable for meeting WQBEL(s) by using basic NPDES compliance assessments. West Virginia will set permit effluent limits to be consistent with the assumptions and requirements of applicable WLAs established in the Chesapeake Bay TMDL. For any offset and trade to occur in West Virginia, the NPDES permit must be modified.

WVDEP has issued one NPDES permit that incorporates nutrient trading (Jefferson County PSD/PA) for manure transport. The contract between the parties has been incorporated into the NPDES permit so that if the permittees were to default on contract conditions, they would be subject to NPDES enforcement by WVDEP.

To date, WVDEP has not taken any enforcement actions against a permittee regarding an offset or trade. For an offset or trade that is implemented under a NPDES permit in West Virginia, the contract between a generator and an offset is included in the NPDES permit. Therefore, if contract terms were broken, WVDEP could take enforcement action against the permittees for noncompliance with the permit.

Currently, West Virginia has no specific protocol for offsets or trading beyond using NPDES permitting procedures on a case-by-case basis. See Section II.B.1 and Section II.A.7 and 8.

8. Accountability and Tracking

Necessary measures are partially in place for point sources. See Section II.B.1 and Section II.A.3 and 8.

WVDEP tracks offset and trades on a case-by-case basis. The Chesapeake Bay TMDL sets individual WLAs for individual significant wastewater treatment plants in West Virginia, and sets aggregate WLAs for non-significant wastewater treatment plants; the TMDL incorporates the information included in West Virginia's final Phase I WIP where possible. West Virginia will incorporate any future offsets or trades into NPDES effluent limitations with tracking based upon discharge monitoring data. Discharge monitoring reports (DMRs) are available for significant point source discharges in West Virginia. Nonsignificant facilities in West Virginia involved in future trades/offsets will be required to individually monitor and report compliance to WVDEP (see West Virginia's final Phase I WIP, Sections 6B.b and 6B.f).

In addition, WVDEP is currently developing protocols and tools to track the following:

- Construction Stormwater General Permit (CSWGP) – tracking/managing registrations by maximum area disturbed by construction at any one time, and tracking land use change;
- MS4 General Permit – in conjunction with the CSWGP, tracking land use change (pre/post construction) in terms of redevelopment, BMP implementation, and progress toward 1" runoff capture (post-construction) as specified in the GP; and
- Agricultural (Ag Sector tracking) – tracking BMP implementation and progress towards two-year milestones.

West Virginia will determine methods for accounting for and tracking offset and trading credits beyond the present NPDES case-by-case basis if/when West Virginia develops a formal offset and/or trading program.

9. Nutrient Impaired Segments

West Virginia currently does not have numeric water quality criteria for nitrogen, phosphorus or sediment. To date, no West Virginia waters that are tributaries to the Chesapeake Bay have identified narrative criteria impairments related to nitrogen or phosphorus. West Virginia will ensure that any trades/offsets will not cause local water quality impacts. See Section II.B.1.

10. Credit Banking

To be determined if/when WVDEP develops a formal trading/offset program. WVDEP will explore the use of aggregators if there is a demand. See Section II.B.1. and Section II.A.2.

11. Growth

Every source category in West Virginia's final Phase I WIP has an "accounting for growth" discussion. West Virginia only expects growth to occur in the urban stormwater and wastewater sectors. All loading from new or increased urban stormwater discharges is expected to be offset and all loading from new or expanded wastewater point sources is expected to be offset. Please see Sections 7D.b and 7D.f of West Virginia's final Phase I WIP for stormwater details. See Section II.B.2

V. Additional Information and Programmatic Needs

WVDEP does not currently have the resources necessary to manage a formal offset and trading program, which will be a significant consideration when deciding whether or not a formal program is developed.

Overall, WVDEP feels that EPA's Offsets and Trading Questionnaire will be useful guidance if it is determined that a formal offset and trading program is necessary.

VI. West Virginia References

West Virginia Administrative Code § 22-11-30, Chesapeake Bay Restoration Initiative.

(<http://www.legis.state.wv.us/WVCODE/ChapterEntire.cfm?chap=22&art=11§ion=30> accessed 08-02-2011).

WVDEP 2009 West Virginia Water Quality Nutrient Credit Trading Program Guidance.

(http://wvri.nrcce.wvu.edu/programs/pwqb/pdf/WVDEP_Trading_Guidance_finalDEP8%2015%2009.pdf, accessed 08-02-2011).

WVDEP 2010. West Virginia's final Phase I Chesapeake Bay TMDL Watershed Implementation Plan. November 29, 2010.

(http://www.wvca.us/bay/files/bay_tmdl_documents/50_WV_Final_WIP_I_Nov_29_2010.pdf accessed 08-02-2011).

APPENDIX A – West Virginia

- 1. EPA expects West Virginia to develop a plan of action to address all unresolved, jurisdiction-specific Tier 1 and Tier 2 recommendations from EPA’s final offsets and trading program assessment by the end of 2012. These recommendations are as follows:**

Tier 1

WV either needs to establish an offset program to manage new sector growth, or EPA expects a quantitative demonstration as to why those sectors either are not growing or do not contribute new or increased loads even though they are growing. This demonstration should be based on recent historical trends and be consistent with the suite of Bay models and their underlying assumptions. EPA expects the demonstration to address septic, agriculture and development.

Tier 2

WV may need new regulations to allow credit generation by agriculture sources. EPA expects WVDEP and WVDA to continue to work together to evaluate the need for additional regulations.

- 2. EPA expects West Virginia to address all unresolved recommendations common to all jurisdictions from EPA’s final offsets and trading program assessment by the end of 2013.**

These recommendations are as follows:

1. Jurisdictions’ definitions of trading ratios, offsets, credit, trading, etc. should be consistent with federal definitions. Some jurisdictions use the terms “trading” and “offsetting” interchangeably. See Section IV. 1.

EPA encourages the Chesapeake Bay watershed jurisdictions to provide clear and comprehensive definitions for the terms and concepts incorporated in their nutrient credit offset and trading programs. EPA notes that common terminology may be necessary or appropriate should methods or policies be developed for interstate offsets or trading. EPA expects that WV will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs

continue to advance in the watershed.

2. Interstate and intrabasin trades and offsets should be evaluated by the jurisdictions for potential inclusion in their trading and offset programs. See Section IV. 10.

In Section 10 of the Chesapeake Bay TMDL, EPA identified interstate trading as a potential stage in the expansion of the trading concept. EPA will continue to work with the Chesapeake Bay jurisdictions to support efficient and appropriate means of expanding nutrient credit trading to meet the goals of the TMDL. EPA expects that WV will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

3. Local governments' data and information should continue to be integrated into state tracking and accounting systems. See Section IV.8.

Conversion of land uses as the result of development and the redevelopment of land are two examples of important types of information that should be tracked and integrated into the state tracking and accounting systems. EPA expects that WV will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

4. Stormwater offsets programs are being evaluated and developed in many jurisdictions. These programs should be consistent with the Chesapeake Bay TMDL and EPA regulations, policy, and guidance. See Section IV.1.

EPA looks forward to working with VA in reviewing the baseline loading reduction

expectations for existing sources to achieve TMDL targets as identified in their draft Phase II WIP. EPA expects that VA will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

5. Several jurisdictions are considering developing or expanding their current programs. The jurisdictions should continue to develop guidance and methodologies to address meeting baseline for point and nonpoint source sectors including consideration of the use of non-traditional Best Management Practices (BMPs) such as algal scrubbers, oyster aquaculture, etc. EPA suggests that the jurisdictions consider incorporating the retirement of credits and use of net improvement offsets in this guidance and methodology. See Section IV. 2 and 5.

EPA expects that any expansion and or development of trading and offset programs, including guidance and methodologies, will be consistent with the Chesapeake Bay TMDL, the Clean Water Act, and relevant regulations, policy, and guidance. The use of non-traditional technologies for meeting baseline for point and nonpoint source sectors needs to be consistent with the Bay model and its assumptions. The Chesapeake Bay Program does have an established process for the validation of non-traditional BMPs and inclusion of those BMPs in the Chesapeake Bay Watershed Model. EPA expects that WV will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

6. Jurisdictions expressed interest in finding a good way to use stormwater BMPs to offset nonpoint sources such as new septic systems and nonregulated agriculture. The jurisdictions should continue to explore the potential use of that type of offset. See Section IV.2 and 5.

EPA expects WV to develop and implement a credible offset program that addresses new and

increased loads, including loads from septic systems and other on-site systems. EPA expects that WV will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

7. Updating enforcement policies and procedures should continue and include, but not be limited to, items such as inspectors' access to off-site areas where credits or offsets are generated and compliance determination methodology. See Section IV.7.

EPA expects that the jurisdiction develops and implements a Trading and/or Offset Compliance Monitoring Strategy and the policies/guidance necessary to implement the strategy. The strategy should provide for regular on site verification by the jurisdiction of generator requirements and conditions to ensure that credits generated are credible.

8. Jurisdictions should continue to develop tracking and accounting systems for new or increased loads and offsets for those loads. These systems should be transparent and accessible to the public. See Section IV. 8.

EPA expects the jurisdictions to develop and implement a tracking and accounting system for new or increased loads and offsets of those loads to ensure that progress is maintained in achieving Bay goals. Tracking of offsets is expected regardless of whether the jurisdiction has a well-developed offset and /or trading program or is conducting offsets or trades on a case-by-case basis while it determines whether to develop a formal program.

9. Jurisdictions should ensure that adequate resources are available to fully implement the developing trading and offset programs. See Section V.

EPA expects the jurisdictions to provide additional resources, as needed, to fully implement their

developing trading and offset programs. EPA expects the jurisdictions to provide adequate resources regardless of whether the jurisdiction has a well-developed offset and/or trading program or is conducting offsets or trades on a case-by-case basis while it determines whether to develop a formal program.