

EPA INTERIM EVALUATION OF DELAWARE'S 2014-2015 MILESTONES

The U.S. Environmental Protection Agency (EPA) is providing this interim evaluation of Delaware's progress towards meeting its 2014-2015 sector-specific milestones and Watershed Implementation Plan (WIP). The Chesapeake Bay restoration operates through a measurable accountability framework. This framework includes the WIPs, annual progress reviews, and two-year milestones. Jurisdictions have the opportunity to adaptively manage their plans and make necessary adjustments to stay on track within this framework and at a midpoint assessment. In 2016, EPA will evaluate whether Delaware achieved its 2014-2015 milestones and has 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.

Load Reduction Review

When evaluating 2014-2015 milestone implementation, EPA is comparing progress to expected pollutant reduction targets to assess whether statewide and sector load reductions are on track to have practices in place by 2017 that will achieve 60% of necessary reductions compared to 2009. According to the data provided by Delaware for the 2014 progress run, Delaware is on track to meet the 2017 targets for nitrogen, phosphorus and sediment. Delaware will need to place additional emphasis on improving implementation in the agriculture and urban sectors to stay on track to meet its WIP and Chesapeake Bay Total Maximum Daily Load (Bay TMDL) commitments by 2025.

While Delaware did increase its implementation of best management practices (BMPs) during the 2014 reporting period and is meeting its 2014-2015 targets for nitrogen and phosphorous load reductions now, achievement of this commitment was due, in part, to new information that was approved for use in the CBP partnership's tools used to track progress. New information such as U.S. Department of Agriculture agricultural census, population and land cover data that the CBP partnership approved for use in its tools to track progress indicates that since 2007, Delaware has seen changes in agricultural production. These changes in agricultural production have resulted in decreases in the estimates of nitrogen and phosphorus loads to the Chesapeake Bay. EPA expects these changes and other new information as appropriate will be used in the development of future milestones, which is consistent with the adaptive management framework.

2014-2015 Milestone Achievements

Agriculture – Ongoing Oversight

- Conducted cropland transect surveys in 2014 to track and report cover crop and conservation tillage data and will be conducting these surveys annually in the future.
- Increased state cost-share funds for manure transport and worked with industry to increase reporting of manure transport in 2014.
- A Confined Animal Feeding Operation (CAFO) General Permit for non-land applying poultry operations was submitted to EPA and has been approved.
- Utilized geographic information system (GIS) and mobile technology to improve field data collection and mapping of practices.
- Seven BMPs were installed at Woodbridge High School's Future Farmers of America farm as part of an educational and outreach program.

- Stormwater pollution prevention plans (SWPPPs) have been developed to address sediment and erosion control during the construction of agricultural buildings. The Sussex Conservation District has developed 19 SWPPPs for 41 agricultural buildings and the Kent Conservation District has developed 5 SWPPPs for the construction of 20 agricultural buildings.
- 450 linear feet of tax ditch banks were stabilized and restored in the Bucks Branch watershed.
- A series of soil health workshops were held for farmers to educate them on soil health techniques such as no-till, crop rotations and planting cover crops.

Urban/Suburban Stormwater – Ongoing Oversight

- Hosted four Level 1, seven Level 2 and four Level 3 training sessions on the revised Sediment and Stormwater regulations to reach almost 400 people.
- The Sussex Conservation District completed 89 active construction site inspections and the Kent Conservation District completed 9 active construction inspections within the Chesapeake Bay watershed.
- Developed two training videos for users of the new Delaware Urban Runoff Management Model (DURMM).
- Completed stormwater retrofit projects in Seaford and Greenwood.
- Worked with the Town of Delmar to pass a resolution to implement a new tree canopy goal.
- Completed the industrial stormwater BMP manual.
- Inspected 51 industrial stormwater facilities.
- Developed draft regulations for industrial stormwater.
- The Town of Laurel began an ambitious street sweeping program that meets CBP's definition in order to receive reduction credits.

Wastewater Treatment Plants and Onsite Systems – Ongoing Oversight

- Reissued 1 of 4 significant discharge National Pollutant Discharge Elimination System (NPDES) permits (Bridgeville) on February 27, 2014, which became effective April 1, 2014.
- Delaware hired a part-time contractual engineer in September 2014 to assist with writing and reviewing permits in order to address the permit backlog.
- A nutrient trade agreement for Seaford wastewater treatment plant (WWTP) and Invista are complete; both NPDES permits must be public noticed and made effective at the same time to accommodate the nutrient trade agreement. It is anticipated that the permits will be public noticed in August 2015, with finalization by the end of 2015.

Offsets and Trading – Enhanced Oversight

- Potential increases in sediments from poultry house construction is addressed in the Sussex and Kent Counties Conservation Plans, though any nutrient increase related to increase in poultry populations is not discussed or quantified. Delaware maintains that additional nutrients from manure from new or increased poultry populations should be adequately covered in existing regulations, policies and plans; specifically, the Sediment and Stormwater Regulations include post construction requirements, and Animal Waste Management Plans and/or Nutrient Management Plans are required to address the fate of all manure generated.

- Sediment and Stormwater Offset Program policies and guidelines can be found in Section 2.04 of the Technical Guidance located at http://www.dnrec.delaware.gov/swc/Drainage/Pages/Technical_document.aspx.
- Completed one conservation plan / maintenance plan for tax ditches to improve water quality management and identified opportunities for offsets. Seven additional plans are in various stages of completion.
- Manure transport is not used to generate offsets for WWTPs in the Chesapeake Bay Watershed.

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

Agriculture – Ongoing Oversight

- Develop a schedule to prioritize issuance of its CAFO General Permit for non-land applying poultry operations in order to meet its milestone of registering 150 CAFOs under the general permit in 2015.
- Complete the development and implementation of its tracking and reporting system for agricultural non-cost-shared BMPs in 2015.
- Increase implementation of priority practices to improve water quality such as cover crops, grass buffers, animal waste management and decision agriculture.

Urban/Suburban Stormwater – Ongoing Oversight

- Publish draft Phase II Municipal Separate Storm Sewer Systems (MS4) General Permit for public notice.
- Increase implementation of practices to keep nitrogen and sediment reductions from this sector on track.
- Continue to provide training and videos to the regulated community regarding sediment and stormwater regulations.
- EPA recommends that Delaware report its progress for implementing stormwater BMPs associated with new construction, redevelopment and retrofits in accordance with the performance standards and retrofits methods approved by the CBP partnership in 2012.

Wastewater Treatment Plants and Onsite Systems – Downgrade to Enhanced Oversight

- Permits have not yet been reissued per the milestone commitments for 3 of 4 significant wastewater treatment plants.
- EPA is downgrading the wastewater sector from ongoing to enhanced oversight in 2015 because 3 of 4 expired significant wastewater treatment plant permits have not yet been reissued. This milestone was not met during the 2012-2013 milestone period and the 2014-2015 milestone to issue Invista and Seaford by December 31, 2014 was not met. If Delaware makes substantial improvements in issuing wastewater permits, EPA may upgrade this sector back to ongoing oversight in subsequent evaluations.

Offsets and Trading – Enhanced Oversight

- Document how offsets from tax ditch maintenance to improve water quality management would be determined/calculated.
- Develop nutrient trading policies and procedures consistent with Chesapeake Bay TMDL expectations and NPDES regulations to provide for consistent program operation and implementation for NPDES compliance purposes. Though Delaware has chosen not to

develop a statewide program, case-by-case application of acceptable guidance will ensure consistency with the Bay TMDL. Examples include the Invista and Seaford NPDES permits.

Tracking, Reporting and Verification

- EPA expects all Chesapeake Bay watershed jurisdictions, including Delaware, to submit a draft BMP verification program quality assurance project plan (QAPP) by June 30, 2015, consistent with the schedule and guidelines adopted by the Chesapeake Bay Program Principals' Staff Committee. EPA further expects Delaware to begin implementing its BMP tracking, reporting and verification program in January 2016 based upon review and approval of the program's QAPP by EPA, with full implementation by 2018.
- EPA also expects Delaware to review and improve its historical BMP record for all sectors, including wastewater discharge information. Delaware should submit draft historical data, along with documentation of methods and assumptions, to the CBPO by June 30, 2015, and final historical data by September 30, 2015, as part of the CBP's midpoint assessment of the Bay TMDL.
- Continue making improvements to an existing tracking and accountability system or develop a new system for tracking new or increased loads to that it is fully operational by December 31, 2015.

Expectations and Recommendations for Development of the 2016-2017 Milestones

Load Reductions

- U.S. Geological Survey (USGS) short-term (2001-2010) trends based on monitoring data indicate increasing phosphorus loads in the Choptank River watershed. Further, a new USGS Eastern Shore report (released March, 2015) shows excess manure and fertilizer are causing worsening phosphorus trends on the Eastern Shore. Based on these monitoring results and other available science such as phosphorus saturation and transport in soils and recent poultry data, EPA believes that the level of effort to manage phosphorus may increase and recommends that Delaware consider additional actions to manage phosphorus in its 2016-2017 milestones and Phase III WIP.

Agriculture

- EPA expects Delaware to use the EPA Animal Agriculture Program Assessment (to be published summer 2015) to develop specific milestones to strengthen state programs, including its compliance assurance program, where necessary.
- EPA expects milestones regarding issuance of Delaware's CAFO General Permits for land-applying poultry operations and non-poultry operations.
- EPA recommends milestones to ensure Delaware has the programs and funding in place to support farmers in properly managing phosphorus on agricultural lands based on the latest science to address manure nutrient imbalances in regions with dense animal agricultural operations.
- Ensure any increase of nutrients from poultry operations, such as new or expanded houses or heavier birds, will be addressed through Sediment and Stormwater Planning, Animal Waste Management Plans, and/or Nutrient Management Plans coupled with a comprehensive compliance monitoring program. EPA expects Delaware to propose a tracking and accountability mechanism to quantitatively account for manure generated or imported within

the watershed and its final disposition (land application, export, transport) to demonstrate that an offset program is not necessary.

- EPA expects programmatic milestones to increase implementation of priority practices, such as cover crops, animal waste systems, manure transport and buffers.
- Based on the findings from the Riparian Forest Buffer Initiative, EPA expects Delaware to include in the 2016-2017 milestones a plan to revise meeting the WIP reductions goals in the Phase III WIP and identify alternative practices to meet the 2025 target.

Urban/Suburban Stormwater

- EPA expects programmatic milestones to increase implementation of practices to increase nitrogen and sediment reductions.
- EPA expects Delaware to issue the Phase II MS4 General Permit that is consistent with the assumptions and requirements of the Bay TMDL and extends coverage to new or expanded urbanized areas identified in the 2010 Census.
- EPA expects milestones to continue to provide training and outreach to MS4s regarding the new Phase II MS4 permit.
- EPA expects a milestone to finalize the draft industrial stormwater permit.

Offsets & Trading

- EPA expects Delaware to continue to identify new or increased sector loads and to offset them within the appropriate timeframe and to continue to track and account for new and increased loads in sector growth demonstrations.

Next Steps

- EPA will continue to meet with Delaware to discuss increasing BMP implementation, manure nutrient imbalances in the region, the upcoming Animal Agriculture Program Assessment and CAFO permitting.
- EPA will work with Delaware to finalize the Phase II MS4 General Permit and provide assistance with training if needed.
- EPA will provide an analysis of 2013 sector load growth demonstration to Delaware by June 30, 2015. EPA expects Delaware to update the sector load growth demonstration with new information including EPA's findings during the 2016-2017 milestone period. EPA also expects Delaware to develop offset regulations and policies if the demonstration shows that new loads are generated and need to be offset.