

EPA INTERIM EVALUATION OF DELAWARE'S 2016-2017 MILESTONES

As part of its role in the accountability framework described in the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) for nitrogen, phosphorus, and sediment, the U.S. Environmental Protection Agency (EPA) is providing this interim evaluation of Delaware's progress toward meeting its statewide and sector-specific two-year milestones for the 2016-2017 milestone period. In 2018, EPA will evaluate whether each Bay jurisdiction achieved the Chesapeake Bay Program (CBP) partnership goal of practices in place by 2017 that would achieve 60 percent of the nitrogen, phosphorus, and sediment reductions necessary to achieve applicable water quality standards in the Bay compared to 2009.

Load Reduction Review

When evaluating 2016-2017 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 percent of necessary reductions compared to 2009. Loads in this evaluation are simulated using version 5.3.2 of the CBP partnership Watershed Model and wastewater discharge data reported by the Bay jurisdictions.

According to the data provided by Delaware for the 2016 progress run, Delaware is on track to achieve its statewide 2017 targets for phosphorus and sediment but is off track to meet its statewide targets for nitrogen.

The data also show that, at the sector scale, Delaware is off track to meet its 2017 targets for nitrogen reductions in the Agriculture, Urban/Suburban Stormwater and Septic sectors and is also off track for phosphorus reductions in the Urban/Suburban Stormwater sector. Delaware is on track across all sectors for sediment and on track for phosphorus in the Agriculture and Wastewater sectors. However, data that are being gathered for the Bay TMDL midpoint assessment could show that changes in levels of effort may be necessary in order to achieve the 2025 targets for all three pollutants. The Phase III Watershed Implementation Plan (WIP), combined with supporting two-year milestones, will address reductions needed from 2018 to 2025.

Through the CBP partnership's Chesapeake Bay Watershed Water Quality Monitoring Network, supported by U.S. Geological Survey (USGS) and the Bay jurisdictions, the monitoring trends indicate that phosphorus loads over the past 10 years are improving (decreasing) at a Delaware station located in the Nanticoke River. However, there is no significant reduction in nitrogen loads at this location. Nitrogen loads are improving (decreasing) over the past 10 years at a Delaware station on the Marshyhope; however, phosphorus loads are degrading (increasing). A Maryland station across the Delaware border on the Choptank River, that receives loads from Delaware, shows both nitrogen and phosphorus loads are degrading (increasing) over the past 10 years. Additional study will continue by USGS and others to better understand the causes behind the short-term and long-term monitoring trends observed at all monitoring stations. The continued investment in long-term monitoring allows the CBP partnership to demonstrate observed improvements to local water quality and to assist in identifying where additional implementation is necessary to achieve applicable water quality standards locally and in the Chesapeake Bay.

Agriculture – Maintain Enhanced Oversight

2016-2017 Milestone Achievements

- Sussex County has made significant effort in inspecting and verifying historic BMPs within the county.
- Sussex County is utilizing PracticeKeeper to track BMP implementation and compliance inspections.
- Sussex County exceeded its cover crop planting goal through the use of an air seeder.
- Anticipates coverage for majority of operations under Concentrated Animal Feeding Operation (CAFO) General Permit (GP) 1, which covers non-land applying agriculture operations, by December 31, 2017. As of December 2016, permit coverage was provided for 50 of 167 operations under GP-1. If Delaware continues to process batches of permits and encourages integrators to assist in farmer outreach, this milestone could be achieved in a timely manner.
- Participating in two CBP partnership Best Management Practice (BMP) panels to examine cropland irrigation management and tax ditch management for potential sources of nutrient reductions.

Key Areas to Address to meet 2016-2017 Milestones

- EPA expects Delaware to provide a schedule for the finalization of the Delaware State Technical Standards by July 1, 2017. Once the Delaware State Technical Standards are finalized, Delaware can proceed with drafting and finalizing CAFO GP-2, which covers land-applying poultry operations and GP-3 which covers the remaining CAFO operations.
- EPA expects Delaware to provide a detailed schedule for coverage issuance and implementation under CAFO GP-1 by July 1, 2017.
- EPA expects Delaware to provide a detailed schedule for permit development, issuance, and implementation for CAFO GP-2 and GP-3 by July 1, 2017.
- EPA expects Delaware to public notice CAFO GP-2 by December 31, 2017.
- EPA expects Delaware to get back on track in addressing the following commitment: Delaware and EPA negotiated a path forward to address concerns with the Nutrient Management Crosswalk in early 2016 and agreed on the information that would provide sufficient documentation in order to credit all reported nutrient management acres in future progress runs. It was agreed that the documentation should include:
 - Aggregated compliance inspection results and compliance determinations conducted by Delaware for the model reporting year, to the extent they are meaningful, including the percent of operations inspected and process for choosing the operations to inspect (random sampling, etc.).
 - Aggregated compliance levels reported in the Annual Reports that Delaware producers are required to submit for the model reporting period, including the percent of total farms complying with the annual report submission requirements
 - An update to the crosswalk report narrative describing how Delaware used the relevant data sources to estimate a compliance levels for each nutrient management tier for the model reporting period.
- Off track for nitrogen reductions in the Agriculture sector. EPA expects Delaware to identify the necessary practices to achieve the 2025 Bay TMDL goals.

Urban/Suburban Stormwater – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Enrolled a total of 330 homes in the Livable Lawns program and certified 6 commercial fertilizer applicators statewide.
- Anticipates an increase in urban nutrient management reporting in the next several years and the 2018-2019 milestones will include urban nutrient management inspections.
- Sussex County is working with several towns to implement green infrastructure projects.
- Held several one-on-one Municipal Separate Storm Sewer Systems (MS4) related meetings with town councils and community representatives of newly identified MS4 communities. In addition, Delaware held an MS4 Workshop on June 15, 2017 to brief communities on the status of the Phase II MS4 General Permit development, establishment of draft waiver criteria, and provide training from the Center for Watershed Protection on addressing MS4 Minimum Control Measures with local budget constraints.

Key Areas to Address to meet 2016-2017 Milestones

- Delaware is expected to make its Draft Phase II MS4 GP available for the public notice and comment in August 2017 and to have the permit signed and effective as of November 2017.
- Unable to address milestones related to compliance with the MS4 GP because the permit has not been issued.
- Reported few acres for stormwater management numeric progress because several projects are currently underway, but not yet completed.

Wastewater Treatment Plants and Onsite Systems – Upgrade to Ongoing Oversight

2016-2017 Milestone Achievements

- On track with issuing permits that are consistent with the assumptions and requirements of applicable wasteload allocations.
- EPA shared a letter with Delaware in fall 2016 committing to upgrade this sector to Ongoing Oversight now that Delaware reissued permits for each of the four significant facilities within the Chesapeake Bay watershed that are consistent with the assumptions and requirements of applicable Bay TMDL wasteload allocations.

Key Areas to Address to meet 2016-2017 Milestones

- None identified.

Offsets and Trading – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Held an interagency trading and offset meeting on January 25, 2017 to discuss program potential.
- Delaware will begin a load growth demonstration as part of the Chesapeake Bay TMDL's accounting for growth requirement, and will incorporate any offset needs in its Phase III WIP. Several sector tracking tools are developed, being expanded, and/or planned to be developed that monitor nutrient and sediment load growth.
- Delaware is working with several towns to develop build out scenarios to better understand future growth planning needs.

Key Areas to Address to meet 2016-2017 Milestones

- Noted that growth in the poultry industry is backfilling historic losses from the 1990's, however the Bay TMDL was developed using 2009 as a starting point. EPA expects Delaware to track and document if there is an increase in manure nutrients generated, from the 2009 starting point, that needs to be offset in order to achieve the 2025 Bay TMDL goals.
- EPA expects Delaware to continue to identify new or increased sector loads and offset these within the appropriate timeframe, and to continue to track and account for new or increased loads.
- EPA recommends that Delaware consider including language in its MS4 permits that would factor the use of trading into the Maximum Extent Practicable determination, and enable progress to be made toward Bay TMDL targets.

Other

2016-2017 Milestone Achievements

- Performed an extensive amount of outreach and educational workshops throughout the year.
- Working to increase tree planting within state lands to improve tree canopy and increase nutrient reductions.

Key Areas to Address to meet 2016-2017 Milestones

- None identified.

Potential Federal Actions and Assistance

- EPA will continue to discount Delaware's reported nutrient management acres to 52 percent for 2016 progress until Delaware provides sufficient data and documentation that is on par with the accepted compliance documentation of the other Bay jurisdictions, and includes the requested level of detail noted in the Agriculture section above. Delaware commits to:
 - By August 1, 2017, develop a written strategy outlining the approach Delaware will take, the data Delaware will collect, and the compliance documentation Delaware will provide to confirm implementation of reported nutrient management acres. This strategy will be reviewed and approved by EPA and the Agriculture Workgroup leadership;
 - By August 1, 2017, provide interim milestones for 2017 and 2018 that will allow Delaware and EPA to assess progress in implementing the strategy;EPA commits to continue to work with Delaware to resolve the remaining concerns regarding the reported compliance levels for nutrient management. EPA will revisit this agreement for the 2016 and future progress runs and consider further discounting the compliance levels, if there is little to no progress in meeting the commitments noted above.
- EPA will upgrade the Wastewater sector to Ongoing Oversight as Delaware reissued permits for each of the four significant facilities within the Chesapeake Bay watershed that are consistent with the assumptions and requirements of applicable Bay TMDL wasteload allocations.

Suggested Considerations for Development of the Phase III WIP and 2018-2019 Milestones

Any recommendations in this section for the Phase III WIP and 2018-2019 milestones are in addition to the Interim Phase III WIP Expectations.

- EPA expects Delaware to document in its Phase III WIP the schedule for the development, issuance, and enforcement of the CAFO GP 2 for land applying operations and GP 3 for all remaining CAFO facilities. Delaware's 2018-2019 milestones should reflect and meet this schedule outlined in the WIP.
- EPA is requesting the opportunity to review and comment on the draft State Technical Standards prior to finalization. EPA is requesting more information regarding if, and how the Phosphorus index (P index) will be revised. EPA recommends that Delaware demonstrate that the revisions to the State Technical Standards are consistent with the Bay TMDL.
- EPA expects Delaware to document the practices necessary to achieve the Bay TMDL goals that will replace the overestimated riparian buffer goals from the Phase I and Phase II WIPs, per the Riparian Forest Buffer Initiative, and identify the programs in place to implement these practices. If additional programs are needed to meet the goals, the WIP should describe what additional actions or programs Delaware will pursue to achieve the 2025 Bay TMDL goals.
- EPA expects Delaware to reissue the Stormwater Construction general permit and the Industrial Stormwater general permit.
- EPA recommends Delaware reconsider the expectations for the septic sector in the Phase III WIP. The current estimated reductions are the same as the expectations for the Urban/Suburban Stormwater sector and may be too high for the septic sector to feasibly achieve by 2025.
- EPA expects Delaware to continue to work with EPA to understand where growth is occurring in Delaware and where loads need to be offset, to offset these new loads within the appropriate timeframe, and to continue to track and account for new or increased loads. In particular, EPA has observed data showing increases in nitrogen and phosphorus loads from the Agriculture sector and increases in nitrogen in the Urban/Suburban Stormwater sector.