

EPA EVALUATION OF NEW YORK'S 2016-2017 PROGRESS and 2018-2019 MILESTONES

In its role in the accountability framework described in the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) document, EPA is evaluating each Bay jurisdiction's progress toward attaining the goal of having practices in place by 2017 that would achieve 60 percent of the nitrogen, phosphorus, and sediment reductions necessary to achieve applicable water quality standards compared to 2009. In addition to including an assessment of this 60 percent goal at the state and state-basin level, this evaluation includes assessments of progress toward meeting sector-specific programmatic commitments, water quality monitoring trends, and the sector-specific commitments for the 2018-2019 milestone period.

The Chesapeake Bay Program (CBP) partnership agreed to use its 5.3.2 suite of modeling tools through 2017 to measure progress towards attaining the 60 percent goal. When the Bay TMDL was established in 2010, the CBP partnership anticipated that the science, data and understanding of the watershed would continue to improve and evolve as the restoration work proceeded and that adjustments to the implementation efforts could be necessary. Therefore, the CBP partnership committed to update the modeling tools to allow the Bay Program partners to better predict areas and degrees of water quality non-attainment and provide better estimates of progress toward attaining the 2025 goal. These updated tools (6.0 suite of models) will be used to develop new numeric planning targets (i.e., the "Phase III Watershed Implementation Plan or WIP Planning Targets"), to be approved by the CBP partnership, to meet the 2025 goal and will be used measure pollutant reduction progress from 2018 through 2025.

The upgraded 6.0 suite of tools predict a different level of pollutant reduction effort than the 5.3.2 suite of models to meet the 2025 goal.

Load Reduction Review

When evaluating 2016-2017 milestone implementation, EPA compared nutrient and sediment loads simulated using the 5.3.2 suite of CBP partnership's modeling tools and wastewater discharge data reported by New York to the statewide goal of 60 percent of the necessary reductions compared to 2009.

EPA is also considering the nutrient targets for 2017 that New York committed to in its Phase II Watershed Implementation Plan (WIP), which are approximately 3 percent higher than the Phase II WIP planning targets, largely due to increasing wastewater sector loads between the Phase I and Phase II WIPs. EPA expects that New York will close the gap in its Phase III WIP and future milestones. The description below of whether New York achieved its targets applies to both New York's WIP targets and the Phase II planning targets.

According to the data provided by New York for the 2017 progress run, New York achieved its statewide 2017 target for phosphorus, but did not achieve its 2017 nitrogen and sediment targets.

EPA is also evaluating 2017 progress and 2018-2019 milestones in the context of New York's history of nitrogen reductions from 2009 - 2017. Based on average annual agricultural load reductions (75 percent of New York's Phase II WIP nitrogen reductions are in this sector), New

York would have needed to almost double its annual rate of agricultural implementation to achieve its 2017 nitrogen target.

As noted above, progress measured using the 6.0 suite of tools is different than progress using the 5.3.2 suite of tools. These numeric differences were provided to the jurisdictions in May 2018. New York will have the opportunity to optimize its strategies to attain the 2025 goals with the development of a Phase III WIP. This Phase III WIP will be finalized in 2019.

Through the CBP partnership's Chesapeake Bay Watershed Water Quality Monitoring Network, supported by U.S. Geological Survey (USGS), the Susquehanna River Basin Commission (SRBC), and the Bay jurisdictions, the monitoring trends indicate that the ten-year trends for nitrogen at the primary monitoring station at Towanda have changed from improving (decreasing), to showing no trend, and the five-year trend indicates degrading (increasing) loads. Phosphorus and sediment load trends at Towanda are also showing no trend. The Cohocton monitoring station in the Chemung watershed currently exhibits increasing nitrogen and sediment loads.

Additional work funded and supported by the CBP partnership will continue by USGS, EPA, SRBC, numerous academic partners, and others to better understand, and, ultimately, explain the causes behind the short-term and long-term monitoring trends observed at all of the CBP partnership's tidal and watershed networks' monitoring stations. The continued investment in monitoring allows the CBP partnership to demonstrate observed improvements to local water quality, to make linkages to pollutant load reduction actions being taken by farmers, municipalities, homeowners, federal facilities and many others, and to assist in identifying where additional implementation is necessary to restore local streams and rivers and achieve jurisdictions' water quality standards in the Chesapeake Bay.

Agriculture – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Executed three contracts to implement the first round of Riparian Buffer Protection awards made by the New York State Department of Environmental Conservation (NYSDEC) in June 2017 to restore and permanently protect riparian buffers through land acquisition and conservation easements.
- NYSDEC allocated \$200,000 of Chesapeake Bay Implementation Grant (CBIG) funding to the Conservation Reserve Enhancement Program (CREP) to support incentive payments to landowners that enroll in new riparian forest buffer contracts.
- Implemented two rounds of the Agricultural Nonpoint Source Abatement and Control Program (AgNPS) for best management practice implementation and two years of the Agriculture Environmental Management base program, supporting technical assistance by Soil & Water Conservation Districts to producers.
- The Upper Susquehanna Coalition received over \$870,000 dollars in Chesapeake Bay Innovative Nutrient and Sediment grant funding in 2017, to build upon and expand delivery of its regional scale implementation system that focuses on nutrient and

sediment reductions in agriculture, streams, and wetlands in the Chesapeake Bay Watershed headwaters.

2016-2017 Programmatic Milestones Missed

- None.

2018-2019 Milestone Strengths

- Committed to develop and issue a second request for proposals for competitive funding program to support protection and restoration of riparian buffers. NYSDEC expects to make up to \$1,000,000 of CBIG funding available for the second round of this program.
- Committed to implement two rounds of the AgNPS for best management practice implementation and two years of the Agriculture Environmental Management base program, supporting technical assistance by Soil & Water Conservation Districts to producers.
- Committed to evaluate existing agricultural programs and agricultural programs implemented on other Chesapeake Bay jurisdictions for potential implementation opportunities.

Key Areas to Address to meet 2018-2019 Programmatic Milestones and Phase III WIP targets

- EPA expects New York to look beyond its current agricultural programs to provide additional milestones to augment its 2009-2017 rate of nitrogen reduction. This could include (but is not limited to), geographic targeting or consideration of requirements for pasture fencing or other Best Management Practices (BMPs) for farms in the watershed with greater than a minimum number of livestock.

Urban/Suburban Stormwater – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Issued a draft Municipal Separate Storm Sewer System (MS4) General Permit (GP-0-17-002) in October 2016. No formal response to comments has been provided to EPA to date. NYSDEC expects to re-notice this permit with changes made in response to comments received on the 2016 draft permit release in late 2018.

2016-2017 Milestones Missed

- None.

2018-2019 Milestone Strengths

- NYSDEC has provided updated Quality Assurance Project Plans and EPA is reviewing descriptions of how both MS4 and non-MS4 stormwater BMPs are currently, or planned to be, collected, reported, and verified.
- To address the more than 70 percent of urban land that is not regulated by MS4 permits, New York included a new milestone to conduct outreach to small un-regulated communities to install, inspect, maintain, verify and report urban BMPs installed.

- New York included a milestone to provide an outline/schedule of local engagement efforts planned in support of the draft Phase III WIP.

Key Areas to Address in the 2018-2019 Programmatic Milestones and to meet Draft Phase III WIP Targets

- None.

Wastewater Treatment Plants and Onsite Systems – Maintain Enhanced Oversight

2016-2017 Milestone Achievements

- Phase I nitrogen bubble permit limits were met in 2016 and 2017, and Phase II bubble permit limits were met in 2017.

2016-2017 Milestones Missed

- New York did not provide monitoring data from available non-significant wastewater treatment plants in 2017.

2018-2019 Milestone Strengths

- Committed to provide monitoring data from available non-significant wastewater treatment plants starting in 2018.
- Committed to reconsider New York's wastewater strategy for nitrogen in 2018 in preparation for development of the draft Phase III WIP.

Key Areas to Address in the 2018-2019 Programmatic Milestones and to Meet Draft Phase III WIP Targets

- None.

Offsets and Trading – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Developed an internal compliance tracking tool funded by the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grant that identifies exceedances and trades under the nitrogen bubble permit for wastewater treatment plants.
- Data tracking tools are being used and expanded across several sectors.

2016-2017 Milestones Missed

- None.

2018-2019 Milestone Strengths

- None.

Key Areas to Address in the 2018-2019 Programmatic Milestones and to Meet Draft Phase III WIP Targets

- EPA expects New York to continue working with EPA to understand where growth is occurring and where loads need to be offset. EPA also expects New York to offset these new or increased loads within the appropriate timeframe.

- As discussed in the loads and agriculture sections, New York nitrogen reduction rates need to be increased to meet the draft Phase III WIP targets. EPA expects New York to include milestones to evaluate new options in all sectors that can provide more aggressive nitrogen reductions in the Phase III WIP.

Other

- In 2018, EPA expects that New York's BMP Verification Program Plan will be fully implemented for all BMPs except for Nutrient Management Practices, which EPA expects will be fully implemented in 2019. The CBP partnership agreed that all reported practices and control technologies must be implemented, maintained and working so they effectively yield nutrient and sediment load reductions. The BMP verification process should be documented in updates to New York's BMP Verification Program Plan (Quality Assurance Project Plans), whenever changes are made after approval by relevant CBP Partnership workgroups and Goal Implementation Teams.
- EPA expects New York to work with EPA and the appropriate federal agencies to establish 2025 federal facility targets that are coordinated with local area goals and also to ensure that BMPs reported by specific federal agencies are included in jurisdiction progress submittal, to allow accurate assessment of federal progress in meeting the federal facility targets. New York should also collaborate with federal agencies to address any issues related to the progress data and reconcile federal agency records with jurisdiction databases or other jurisdiction BMP record systems.

Potential Federal Actions and Assistance

- EPA would like to arrange a meeting soon with our respective technical and program experts in the Binghamton area to evaluate options for increasing New York's nitrogen reductions in the Phase III WIP.
- EPA's Chesapeake Bay Program Office intends to commit staff, contractual and funding resources to support of the development and implementation of each of the seven watershed jurisdictions' Phase III WIPs. This support includes evaluation of the most-effective practices and locations, evaluation of a jurisdiction's implementation capacity under various staffing, funding, regulatory and programmatic scenarios, local planning outreach, legislative and regulatory gap analysis, and monitoring trend analysis.