

EPA EVALUATION OF THE DISTRICT OF COLUMBIA'S 2016-2017 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 the CBP partnership's modeling tools and wastewater discharge data reported by the District of Columbia (the District) to the Districtwide and state-basin goal of 60 percent of the necessary reductions compared to 2009.

According to the data provided by the District for the 2017 progress run, the District, for all sources combined, achieved the 2017 targets for nitrogen, phosphorus, and sediment.

The District is on track to meet all its Watershed Implementation Plan (WIP) and Bay TMDL nitrogen, phosphorus, and sediment targets by 2025. 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. The District 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.

The CBP partnership uses its Chesapeake Bay Watershed Water Quality Monitoring Network, supported by U.S. Geological Survey (USGS), the Susquehanna River Basin Commission (SRBC), and the Bay jurisdictions, to determine trends in nitrogen, phosphorus, and sediment levels throughout the watershed.

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 the monitoring stations throughout the CBP partnership's tidal and watershed networks. 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 the jurisdictions' water quality standards in the Chesapeake Bay.

Urban/Suburban Stormwater – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Developed and submitted its application to renew its Municipal Separate Storm Sewer System (MS4) Permit in 2016.
- Completed a clean-up of its historic best management practice (BMP) implementation data.
- Completed four large stream restoration projects in Alger Park, Pope Branch, Springhouse Run, and Nash Run.
- Awarded over \$12 million to develop the Stormwater Retention Credit Purchase Agreement program to mobilize private investment in green infrastructure.
- Inspected all MS4 outfalls within the 5-year MS4 permit cycle.
- Updated its consolidated TMDL implementation plan to provide numeric and programmatic milestones that can be integrated into the next MS4 permit.
- Developed and is using a new auditing tool to track and report implementation from its RiverSmart Homes program. The District integrated this tool into its stormwater database, in addition to new materials, as part of the community outreach efforts.
- Hosted multiple trainings related to various stormwater topics for District employees in 2016 and 2017.
- Planted 7,794 trees in the MS4 drainage area in Fiscal Year 2017 according to its latest MS4 annual reports. As of 2016, the District has achieved 38.7 percent average tree canopy cover District-wide.

2016-2017 Milestones Missed

- The District achieved only about one-third of its Urban/Suburban Stormwater sector nitrogen reductions. Although the District did not achieve 60 percent of the necessary nitrogen and sediment load reductions needed between 2009 and 2025 in the urban sector, the District did achieve its 2017 milestone commitments.
- Only two District-owned facilities have obtained coverage under the new 2015 multi-sector general permit (MSGP). As of December 31, 2017, six additional facilities have started the application process.
- A delay in finalizing the Stormwater Memorandum of Understanding (MOU) between District agencies, in part due to delays with District Department of Energy & Environment

(DDOEE) and EPA signing an Administrative Order of Consent for the District's MS4 program, held up the development of a pollution prevention application database. The MOU was executed July 26, 2018, and the database will help District employees capture and track pollution reduction activities that would be used in the development and implementation of facility stormwater pollution prevention plans.

2018-2019 Milestone Strengths

- Emphasized increasing financing options to support implementation. Milestones include evaluating a potential increase in the District's stormwater fee, implementing the Stormwater Retention Credit (SRC) Price Lock program, and supporting the SRC program by funding site evaluations for interested property owners.
- Committed to expanding the Illicit Discharge Detection and Elimination (IDDE) program to include outfall inventory and dry weather outfall inspections.
- Committed to inventory and analyze target areas for stormwater management programs for prioritized Phase III WIP strategy development.
- Committed to initiate an evaluation of potential options to update District's stormwater regulations.
- Committed to integrating database interfaces to allow the DDOEE to pull relevant information from tree planting, BMP maintenance and ownership from other agencies.
- Committed to use the stormwater database to track and target verification projects.
- Committed to initiate assessment of stormwater performance standards, based in part on future precipitation forecasts.
- Committed to initiate implementation of Stormwater Pollution Prevention (P2) Program Plan for District Operations in compliance with MS4 consent agreement with EPA. Also committed to fully implement the plan within two years.
- Committed to working with federal agencies with landholdings in the District to develop Phase III WIP strategies including programmatic and numeric pollutant reduction targets and to report implementation progress.
- Committed to develop a Climate Resilient Design Guidelines and Strategic Implementation plan that includes recommendations for funding climate resilient projects and developing climate resilient design guidelines. Also committed to releasing an updated stormwater management guidebook.

Key Areas to Address in the 2018-2019 Milestone Period and in the Phase III WIP

- EPA expects the District to continue to work with EPA to ensure that all stormwater BMPs are being reported, so that estimates of progress for the Urban/Suburban Stormwater sector are accurate. DDOEE has corrected data submissions in Phase 5.3.2 and is working with the CBP partnership to address data submission issues for progress run through the Phase 6 model.
- In 2018, EPA expects the District's BMP Verification Program 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.

- Continued efforts to reconcile the historical BMP data submitted by the federal agencies in DDOEE's stormwater management database is needed. The Federal Facilities Workgroup will also rely on the District's input to ensure that federal facility targets, the use of the Phase 6 watershed model, and federal facility-content in the Phase III WIPs are fully supportive of the District's WIP implementation. Continued coordination with federal agencies is necessary to allow full credit to be available to the jurisdiction and federal agencies for BMP implementation on federal land.

Wastewater Treatment Plants– Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- District of Columbia Water (DC Water) continued to reduce its overall wastewater volume through improving wastewater collection systems and other efforts.

2016-2017 Milestones Missed

- None.

2018-2019 Milestone Strengths

- Completed and started operation of Anacostia River Tunnel which will help control and reduce combined sewer overflows to Anacostia River by 81 percent.
- Started operation of a wet weather treatment facility to accept and treat millions of gallons of combined sewage.

Key Areas to Address in the 2018-2019 Milestone Period and in the Phase III WIP

- EPA expects DC Water to include wastewater treatment plant and combined sewer system overflow (CSO) concentration, flow, and loading data into the Phase III WIP, consistent with DC Water's Blue Plains Permit and other National Pollutant Discharge Elimination System (NPDES) permits.
- EPA expects DC Water to update the Quality Assurance and Quality Control (QA/QC) process for wastewater data from DC Water's Blue Plains wastewater treatment plant to EPA NPDES databases and to CBP partnership's Point Source online application.
- EPA expects DC Water to ensure all data reports are complete and to conduct QA/QC on the data before submitting it to EPA by the agreed upon due dates.
- EPA expects the District to report the CSO Long Term Control Plan (LTCP) implementation progress in 1) separation acres and location; 2) equivalent acres retrofitted with green infrastructure.

Offsets and Trading - Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Stormwater Retention Credit Program operates within the District's Phase I MS4 Permit.

- The District's Blue Plains wastewater permit contains a clear, specific requirement to provide flow capacity estimates to DDOEE in relation to projecting growth for the District's WIP.
- The District will continue to work with EPA to understand where growth is occurring, if loads need to be offset, and to offset these new or increased loads within the appropriate timeframe. EPA also expects the District to continue to track and account for new or increased loads (e.g., increases in nitrogen in the Urban/Suburban Stormwater sector).

2016-2017 Milestones Missed

- None.

2018-2019 Milestone Strengths

- Committed to implementation of SRC Price Lock Program with \$11.5 million in DDOEE funding to purchase credits from Green Infrastructure (GI) project installation.
- Committed to implement a SRC site evaluation program, which will provide technical assistance to property owners who need assistance evaluating GI feasibility. DDOEE's budget to provide technical assistance is \$100,000.
- Committed to providing a SRC aggregating businesses start-up grant of up to \$75,000 to support technical and outreach work to identify GI opportunities on properties whose owners are interested in the financial and other benefits of SRC-generating GI.

Key Areas to Address in the 2018-2019 Milestone Period and in the Phase III WIP

- The CBP partnership agreed to develop 2025 growth projections for jurisdictions to use in developing their Phase III WIPs. EPA will provide growth projections to the District by sector and basin based on the District's data. EPA expects District to account for and describe how it will offset any sector or basin growth in its Phase III WIP (e.g., programs, regulations, etc.). Growth projections will be updated every two years and EPA expects the District to address any projected growth in its two-year milestones.

Other

Key Areas to Address in the 2018-2019 Milestone Period and in the Phase III WIP

- EPA recognizes the District's efforts to work with EPA and the appropriate federal agencies to establish 2025 federal facility targets that are coordinated with local area goals and also ensure that BMPs reported by federal agencies are included in jurisdiction progress submittal and identified as a federal BMP, to allow accurate assessment of federal progress in meeting the federal facility targets. EPA expects the District to continue these efforts and 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 will facilitate an annual coordination call to ensure that progress data for wastewater is on track and will be reported to EPA on a timely basis.
- EPA will oversee federal agency efforts to develop strategies to meet Phase III WIP federal facility targets as well as implementation progress. EPA's Chesapeake Bay Program Office

will provide assistance coordinating and conducting analysis to support the development of federal facility targets, strategies to meet targets, and reporting implementation progress.

- 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.