

**EPA EVALUATION OF THE DISTRICT OF COLUMBIA'S
2018-2019 and 2020-2021 MILESTONES**

Executive Summary

The seven jurisdictions (Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia) in the Chesapeake Bay Program (CBP) partnership agreed to develop and implement a framework for holding each partner accountable for reducing nitrogen, phosphorus, and sediment loads to meet water quality standards in the Chesapeake Bay and its tidal tributaries. The CBP partnership established the goal to have all practices in place by 2025 that were necessary to achieve applicable water quality standards in the tidal Bay. Part of the U.S. Environmental Protection Agency's (EPA's) role in the partnership's accountability framework is to evaluate and report each jurisdiction's progress toward meeting this goal every two years.

In that role, EPA has evaluated the District of Columbia's (District) progress toward attaining the goal of having practices in place by 2025. This evaluation includes an assessment of progress toward attaining this goal at the state and state-basin level and progress toward meeting sector-specific programmatic commitments for the 2018-2019 milestone period. This evaluation also provides an assessment of other sector-specific programmatic and numeric commitments (e.g., Best Management Practices or BMP implementation targets) for the 2020-2021 milestone period and the status of the relevant water quality monitoring trends.

In reviewing the District's final progress for the 2018-2019 milestones, the 2019 numeric progress, and the final 2020-2021 milestones, EPA found areas in which the District achieved the goals it had set. EPA also identified areas to address during the 2020-2021 milestone period and beyond. According to the data provided by the District for the 2019 progress run¹, jurisdiction-wide 2019 targets for nitrogen, phosphorus, and sediment were achieved.

Some notable strengths identified in this evaluation of the District's 2018-2019 milestones and the final 2020-2021 milestones include:

- Achieving its overall 2025 planning targets for nitrogen and phosphorus and allows for load increases for both nitrogen and phosphorus. All discharges remain under the goals.
- Continuing to set and meet target dates for its wastewater treatment milestones ahead of its consent decree deadlines.
- Placing in operation the District's Wet Weather Treatment Facility (WWTF) and the first section of the Anacostia Tunnel System, in advance of the consent decree deadline.
- Construction of the Northeast Boundary Tunnel is on track. By December 2019, about 2.3 miles of the five-mile long tunnel has been mined.

¹ Each year, jurisdictions in the CBP partnership report on the BMPs installed, tracked and verified and the pollutant load reductions from wastewater treatment plants. Using the Chesapeake Assessment Scenario Tool, this information (or "annual progress runs") provides an estimate of how much nitrogen, phosphorus and sediment has been reduced.

- Initiating implementation of its Stormwater Pollution Prevention (P2) Program Plan for District Operations in compliance with its municipal separate storm sewer systems (MS4) consent agreement with EPA Region 3.

Some key areas that EPA recommends addressing during the 2020-2021 milestone period and beyond include:

- Working with federal agencies to reconcile the stormwater practices database with federal BMP records to ensure a complete and accurate assessment of the District's and federal agencies' progress.
- Considering milestones that plan for growth (while recognizing that the District currently achieves its 2025 planning targets for nitrogen and phosphorus).

Load Reduction Review

When evaluating 2018-2019 milestone implementation, EPA compared nutrient and sediment loads simulated using the 6.0 suite of the CBP partnership's modeling tools and wastewater discharge data reported by the District to the statewide and state-basin Phase III WIP planning targets.

According to the data provided by the District for the 2019 progress run², the District met its 2025 Planning Targets for nitrogen and phosphorus. However, for the urban/suburban stormwater sector, the District is not on track for nitrogen (15% of its goal achieved), phosphorus (45% of its goal achieved), or sediment (56% of goal achieved).

The District developed specific BMP implementation targets for the 2020-2021 milestone period for the BMPs, as recommended in EPA's evaluation of the District's Phase III WIP. A summary of the 2019 progress, the 2020-2021 commitments and the 2025 goals for these BMPs is listed below. The summary progress from the CBP partnership's modeling tools for 2009 and 2019 incorporate BMP credit duration. The CBP partnership decided to remove reported BMPs from the model simulation at the end of their established lifespans unless verified by the state as inspected and continuing to function as designed. The District provided programmatic milestones to support these BMP implementation targets and EPA, in the sector-specific sections below, provides its evaluation of these programmatic milestones. The District also committed to BMP implementation targets, and associated programmatic milestones, for: urban nutrient management; stream restoration; forest planting on developed lands; tree planting for forest canopy; and wetland management, restoration and/or enhancement.

² Each year, jurisdictions in the CBP partnership report on the BMPs installed, tracked and verified and the pollutant load reductions from wastewater treatment plants. Using the Chesapeake Assessment Scenario Tool, this information (or "annual progress runs") provides an estimate of how much nitrogen, phosphorus and sediment has been reduced.

BMP³	2009 Progress	2019 Progress	2020/2021 Milestone Target	2025 WIP Target
Runoff Reduction Performance Standard (acres)	136	737	200 (over the two-year period)	1901
Urban Stream Restoration (linear feet)	None reported. ⁴	30,852	1,850	56,928
Urban Tree Planting (acres)	None reported.	380	44 (over the two-period)	509

**Urban/Suburban Stormwater
2018-2019 Milestone Achievements**

- Initiated implementation of its Stormwater Pollution Prevention (P2) Program Plan for District Operations in compliance with municipal separate storm sewer systems (MS4) consent agreement with EPA Region 3. It is also completing work on a P2 database.
- Used its Stormwater Database (SWDB) to track BMPs installed in the District through regulated and voluntary programs. The SWDB includes inspection data so DOEE can track when BMPs are constructed and the current maintenance status of each BMP.
- Reviewing District municipal facilities that are critical sources of stormwater pollutants and is working with EPA to ensure that they received appropriate National Pollutant Discharge Elimination System (NPDES) permit coverage, if applicable.
- Reported 109 acres of land are being managed that count toward the MS4 permit's 5-year, 1,038 "acres managed" performance requirement.
- Enrolled 7 sites in the Stormwater Retention Credit (SRC) Price Lock Program. The projects that have been built have achieved a combined retrofit of 15.4 acres in the MS4 area.
- Continues to conduct inspections of critical sources and assure compliance through compliance assistance or formal enforcement actions as required by the MS4 permit.
- Continues to implement its Illicit Discharge and Detection and Elimination Program by conducting outfall inspections according the annually updated inventory and schedule.
- Continues to make progress on its urban canopy plan to plant 33,525 trees in the MS4 area by 2025. In FY2018, District Department of Transportation (DDOT), DOEE and partners planted 13,260 trees. In FY2019, DDOT, DOEE and partners planted 15,692 trees, surpassing its annual planting goals of 6,705 trees per year. This is more than needed to achieve the District's 40% tree canopy goal.

³ BMP levels are units reported or planned by the jurisdiction. The levels are calculated using the Phase 6.0 suite of modeling tools and include everything established or installed, reported, and functioning through the particular year, e.g. through 2009, or through 2019, etc., not just new reported implementation unless otherwise noted.

⁴ CBP partnership modeling tools evolve based on CBP partnership decisions. As a result, some BMPs have "none reported" listed since those particular BMP names were not available for reporting. These practices were often included in another BMP category before the refinement to be more specific in the naming convention.

2018-2019 Milestones Missed

- Missed its deadline for releasing an Updated Stormwater Management Guidebook by the end of 2019 but has since completed this milestone. The proposed changes were published for public notice and comment in February 2019. The Guidebook was released in January 2020.
- Did not complete three environmental assessments for stream restoration projects as expected (Pinehurst and Fort Dupont). Contracting complications caused by archeological work delayed the work. This work has been rolled over into the 2020-2021 milestone period.

2020-2021 Milestone Strengths

- Commitment to manage an additional 200 acres in the MS4 area with runoff reduction stormwater best management practices.
- Commitment to work with federal agencies and EPA to rectify land use errors in the Federal Facility Geographical Information System (GIS) data layer.
- Commitment to finalize its evaluation of potential options to update District stormwater regulations and initiate the rulemaking process, if appropriate.
- Commitment to work with federal agencies to reconcile the stormwater practices database with federal BMP records to ensure a complete and accurate assessment of DC and federal agency progress.
- Commitment to evaluate options for increasing the District's stormwater fee, including an assessment of opportunities to adjust the stormwater fee to cover new programs and BMP maintenance.
- Commitment to assess opportunities for a District-wide green infrastructure (GI) maintenance strategy.
- Commitment to implement regulatory amendments to prioritize use of High-Impact SRCs.
- Commitment to streamline the permitting process to build GI in the Public Right of Way (PROW) to generate SRCs and develop incentives to reduce the financial risks associated with building GI in the PROW to generate SRCs.
- Commitment to complete construction of two stream restoration and outfall projects (Branch Avenue and Park Drive) and complete the design for one stream restoration project (Fort Dupont).
- Commitment to implement 44 additional acres of Urban Tree Planting as progress toward the District goal of 40% Urban Tree Canopy by 2032.
- Commitment to develop Critical Area Regulations that address living shorelines, floodplain management, wetlands and wildlife.

Key Areas to Address in the 2020-2021 Milestone and Beyond

None.

Wastewater Treatment Plants and Onsite Systems

2018-2019 Milestone Achievements

- Placed the District's Wet Weather Treatment Facility (WWTF) and the first section of the Anacostia Tunnel System into operation in advance of the consent decree deadline. In 2019,

the total volume pumped and treated through the WWTF is 4.6 trillion gallons and approximately 1,000 wet tons of screenings and grit (trash, debris, sediment) were removed.

- Updated its BMP Verification QAPP and included a description of its process for submitting wastewater data via EPA's Point Source App.
- Construction of the Northeast Boundary Tunnel is on track. By December 2019, about 2.3 miles of the five-mile long tunnel has been mined.
- The first GI projects in the Rock Creek and Potomac sewer-sheds, as required by consent decree, were placed in operation in 2019.

2018-2019 Milestones Missed

None.

2020-2021 Milestone Strengths

- Continues to set and meet target dates for its milestones ahead of its consent decree deadlines.
- Commitment to update the Regional Wastewater Flow Forecast Model of the Blue Plains Service Area through 2050 with data from Version 9.2 of the Cooperative Forecasting Analysis.

Key Areas to Address in the 2020-2021 Milestone Period and Beyond

None.

Growth, Offsets, and Trading

2018-2019 Milestone Achievements

- Achieved its 2025 planning targets for nitrogen and phosphorus and allows for load increases for both nitrogen and phosphorus. All discharges remain under the goals.
- Enrolled 7 sites in the SRC Price Lock Program. The projects that have been built have achieved a combined retrofit of 15.4 acres in the MS4 area. Projects in design, permitting, and construction will achieve an additional 6.2 acres in the MS4 area.
- SRC aggregators have informed DOEE that the ability to sell SRCs to DOEE through the SRC Price Lock Program has increased investors' interest in funding GI in the District, including at lower interest rates. This increases the funds available to construct GI in the MS4 area.
- Made two SRC purchases through the SRC Price Lock Program, purchasing 290,926 SRCs. DOEE has reserved approximately \$3.6 million of the total \$11.5 million for the SRC Price Lock Program. DOEE reserves funds when projects enroll. Funds are spent over the first 12 years of SRC certification.
- Awarded 10 SRC Aggregator Startup Grants of approximately \$75,000 each. These SRC aggregators are in the process of the initial outreach and technical work to develop preliminary green infrastructure designs that will be eligible for participation in the SRC Price Lock Program.
- Conducted three SRC Site Evaluations, through a DOEE grantee, to assist site owners in the evaluation of GI feasibility on their property. Additional funds remain available to conduct SRC Site Evaluations.

2018-2019 Milestones Missed

None.

2020-2021 Milestone Strengths

- Evaluate options for amending the District's stormwater regulations to require developers buying SRCs to use High-Impact SRCs if they are available and affordable. High-Impact SRCs are generated by new, voluntary GI in the MS4 area instead of SRCs from practices built pre-2013, in the combined sewer area, or in excess of a regulatory requirement.
- SRC Price Lock program enables participants to sell SRCs to the District government at a fixed price, providing confidence to investors who commit funding to GI projects. DOEE has \$11.5 million available to fund this program. DOEE can use the funds to purchase and retire SRCs. DOEE will enhance the program to generate demand from developers, including using the funds to pay participants to sell their SRCs at reduced rates, particularly in large or multi-year transactions, to motivate developers to purchase from SRC Price Lock Program participants.
- Plans to streamline the permitting process to build GI in the PROW to generate SRCs. DOEE also plans to develop incentives to reduce the financial risks associated with building GI in the PROW to generate SRCs.
- Ensures that SRC aggregating businesses that want to design and install GI from multiple projects can apply for an SRC Aggregator Startup Grant of up to \$75,000. These grants 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.
- Plans to develop an initiative to allow SRC generators or aggregators to receive additional financial incentives if they conduct outreach to communities who may be impacted by SRC generating projects in order to increase understanding of and support for new GI. Generators can also receive funding to incorporate elements that provide co-benefits in their installations. DOEE will utilize the WIP Action Team Co-Benefit Fact Sheets to inform co-benefit outreach.
- Will conduct outreach to the building industry to encourage participation in off-site stormwater regulation compliance opportunities through the SRC Program and to increase awareness of the Self-Inspection Self-Reporting (SISR) program.

Key Areas to Address in the 2020-2021 Milestone Period and beyond

Although the District currently achieves its 2025 planning targets for nitrogen and phosphorus and allows for load increases for both nitrogen and phosphorus, the District should consider milestones to plan for growth.

Other (Climate Resiliency, Federal Facilities, Segment-shed Goals for the Tidal Jurisdictions, BMP targeting, and Diversity)

2020-2021 Milestone Strengths

- Evaluating floodplain regulations to consider revising them to increase the District's resiliency and better the District for climate changes.
- Developing climate resilient design guidelines outlining how to incorporate future climate projections that include more frequent precipitation and flooding events into building and site-level design.

- Awarded a contract to support the implementation of “Climate Ready DC”. Through this contract, DOEE has completed a strategic roadmap for “Climate Ready DC” prioritizing high impact and urgency actions.
- Working with federal agencies to acquire and report BMP implementation data into the District’s annual progress data submissions as outlined in the 2013 Memorandum of Understanding (MOU) among EPA, DoD, NPS and GSA regarding Federal Agency Stormwater Management in the District of Columbia (2013 Federal Agency Stormwater Management MOU).
- Working on strategies to engage residents in under-represented communities and encourage greater participation in the River Smart Homes program. Specifically, targeted engagement and outreach strategies will be utilized to reach more residents in Wards 7 and 8.

Key Areas to Address in the 2020-2021 Milestone Period and beyond

- Report on the outcomes from its process for targeting local sub-watersheds to prioritize implementation in areas that achieves valuable co-benefits in its 2020-2021 milestones.
- Re-commit to meeting with Federal Agencies as part of the 2013 Federal Agency Stormwater Management MOU. No meetings were held in 2018-19.

Potential Federal Actions and Assistance

As noted in its Phase III WIP evaluations, EPA remains prepared to assist each of the seven watershed jurisdictions in implementing the 2020-2021 milestones. EPA will work with each jurisdiction to develop a specific oversight and assistance activities to provide prioritized support for implementation efforts, including funding, technical assistance and analysis, training, and regulatory reviews.

2009-2018 Monitoring Trends Summary

The CBP partnership’s Chesapeake Bay Program Nontidal Water Quality Monitoring Network, supported by EPA, the U.S. Geological Survey (USGS), the Susquehanna River Basin Commission (SRBC), and the Bay jurisdictions, generates water quality monitoring data in freshwater rivers and streams throughout the watershed that is analyzed by USGS for nutrient and sediment loads and trends. The most recent USGS results (<https://cbrim.er.usgs.gov/summary.html>) over the period of 2009-2018 were made available in March 2020. While identifying drivers behind individual trends is often complex, the monitoring results are worthy of the District’s consideration as it develops the programs and BMPs planned for the next two years.

2020-2021 Milestone Strengths

Commitment to considering USGS stations, citizen science, and other local monitoring data when evaluating sources of pollution and priorities.