

EPA EVALUATION OF VIRGINIA'S 2024-2025 and 2026-2027 MILESTONES

Executive Summary

The Chesapeake Bay Program (CBP) partnership established a goal to implement and maintain practices and controls to reduce nitrogen, phosphorus, and sediment in order to achieve applicable water quality standards as described in the [Chesapeake Bay Total Maximum Daily Load](#) (Bay TMDL). The CBP partnership, including the seven jurisdictions (Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the U.S. Environmental Protection Agency (EPA), agreed to develop and implement a framework for holding each partner accountable for reducing nitrogen, phosphorus, and sediment loads to meet the [CBP partnership interim water quality targets](#).

In that role, EPA evaluated Virginia's progress toward attaining nitrogen, phosphorus, and sediment goals at the state and state-basin level and progress toward meeting sector-specific programmatic commitments for the 2024-2025 milestone period. This evaluation also provides an assessment of the final 2026-2027 commitments to maintain and accelerate progress over the next two years.

In reviewing Virginia's final programmatic progress for the 2024-2025 milestones, the 2025 numeric progress, and the final 2026-2027 milestone commitments, EPA identified sector-by-sector strengths as well as areas for improvement. According to the data provided by Virginia for the 2025 progress run, Virginia did not achieve its [statewide interim target](#) for nitrogen but did achieve its statewide interim targets for phosphorus and sediment. EPA stands ready to assist Virginia with implementing its 2026-2027 two-year milestone commitments.

Some notable strengths identified in this evaluation of Virginia's 2024-2025 milestone progress and the final 2026-2027 milestone commitments include:

- Appropriated \$144.3 million in fiscal year (FY) 2025 and \$155.6 million in FY26 to Soil and Water Conservation Districts for implementation of agricultural best management practices in the Chesapeake Bay watershed, fully funding the agricultural needs assessment in both years.
- Reissued the Phase II individual Municipal Separate Storm Sewer System (MS4) permit for Virginia Department of Transportation as well as the expired Phase I MS4 permits.
- Commits to continue expanding tree planting and riparian forest buffer conservation and establishment through impactful programs such as the Riparian Forests for Landowners (RFFL) initiative, the Virginia Trees for Clean Water grants, and implementation of the Riparian Forest Buffer Action Plan.

Some key areas that EPA expects Virginia to address in the 2026-2027 milestone period and beyond include:

- Continue to accelerate best management practice (BMP) implementation in the agricultural sector, especially because the Phase III Watershed Implementation Plan (WIP) is relying on this sector for most of the remaining reductions.
- Continue to accelerate BMP implementation in the developed (urban/suburban stormwater) sector, especially because that sector continues to experience growth.
- EPA supports Virginia's plan to explore opportunities to utilize remote sensing to verify establishment and kill down of cover crops. EPA encourages Virginia to coordinate with the EPA Chesapeake Bay Program Office for technical assistance and to align with related partnership activities.

Background and Looking Forward for Future Reviews of Progress

Since 2009, the CBP partnership has used two-year milestones to identify shorter-term actions for implementing WIPs and to document progress toward the partnership's water quality targets. In January 2025, the Principals' Staff Committee¹ (PSC) approved an updated approach to the two-year milestones to streamline both the development of milestone commitments and the reporting of progress, starting with the 2026-2027 milestone cycle. Under this updated approach, jurisdictions, the Conowingo WIP Steering Committee, and Federal Agencies--collectively referred to as Milestone Partners--are [expected to identify](#) high-level programmatic actions they plan to implement during the 2026-2027 milestone period to maintain or accelerate implementation toward meeting interim water quality targets.

At the September [2024 Management Board² meeting](#) the CBP partners agreed to define the "water quality targets" as the Interim Targets and Conowingo Targets.³ The Interim Targets are the Phase III Planning Targets factoring in 2025 changing environmental conditions and Unaccounted Additional Loads (UALs)⁴. In the most recent [Chesapeake Bay Watershed Agreement](#), the CBP partnership agreed that, through 2030, the signatories will continue to accelerate completion of all water quality targets through implementation of Chesapeake Bay Watershed Implementation Plans, two-year milestone commitments and other innovative strategies to achieve and maintain reduced levels of nitrogen, phosphorus and sediment. This evaluation and future evaluations through 2030 will measure progress toward the water quality targets using Chesapeake Assessment Scenario Tool (CAST 2023), unless amended by a future CBP partnership decision.

Concurrently, the CBP partnership is updating to the Phase 7.0 suite of modeling tools, which are expected to be completed and approved by the partnership in 2028. By December 31, 2030, the CBP partnership committed to revise the planning targets approved by the PSC for nitrogen,

¹ As of July 2026, the PSC name changed to the Policy Steering Committee.

² As of July 2026, the Management Board was dissolved as part of the revised Governance and Management Framework.

³ The PSC approved a phased approach for what can be achieved at Conowingo by 2025. Conowingo has a separate WIP and milestones to meet those targets.

⁴ The UALs are equal to the increased load from cumulative Phase 6 CAST updates to model inputs that occurred after the Phase 3 Planning Targets were set in 2018. Accounting for the UALs balances the load increases from the model changes. Additional reductions necessary to account for Conowingo infill are not included.

phosphorus, and sediment, incorporating the latest watershed modeling, monitoring data and research findings, and to develop new or amended WIPs to meet the updated targets by 2040.

In addition to updating tools, targets, and WIPs, the CBP partnership is exploring ways to better explain progress and the changing environmental conditions of the Chesapeake Bay, using a combination of modeling results and monitoring data. EPA encourages each of the Milestone Partners to review and assess both the available real-world monitoring data and the most recent modeling results (Progress Year 2025) to inform the priority strategies.

Detailed Evaluation of Overall Load Reductions and Source Sectors

Load Reduction Review – Statewide and by Major River-Basin⁵

Each year, jurisdictions in the CBP partnership report the BMPs they have installed, tracked and verified, along with the pollutant load reductions from wastewater treatment plants. When evaluating Virginia's 2024-2025 milestone implementation, EPA simulated nutrient and sediment loads using CAST-23⁶ and wastewater discharge data reported by Virginia and compared those loads to Virginia's water quality targets.

According to the data provided by Virginia for the 2025 progress run, Virginia did not achieve its statewide target for nitrogen but did achieve its statewide targets for phosphorus and sediment. At the state-basin level, Virginia did not achieve its nitrogen targets for the Eastern Shore, James, Potomac, Rappahannock, and York basins. Virginia achieved its phosphorus targets for the Eastern Shore, Potomac, and York basins but did not achieve its phosphorus targets for the other major basins (James and Rappahannock). Virginia achieved its sediment targets for the Eastern Shore, James, Potomac, Rappahannock, and York basins. EPA expects Virginia to meet and maintain BMP implementation levels to ensure progress is sustained.

⁵ Major river-basin refers to the eight major river basins draining to the Chesapeake Bay, some of which are shared by more than one Bay jurisdiction. For example, the Susquehanna River is shared by New York, Pennsylvania, and Maryland; Pennsylvania-Susquehanna refers to the Pennsylvania portion of the river. The phrase "major river-basin" is interchangeable with "state-basin" in this document.

⁶ CAST-23 is part of the Phase 6.0 suite of modeling tools for the Chesapeake Bay.

Table 1. Loads and Targets for Virginia based on CAST-23 and reported wastewater data.

Pollutant	2009 Progress Loads (M lbs/year)	2025 Progress Loads (M lbs/year)	Water Quality Target Loads (M lbs/year)	Percent of Target Achieved
Nitrogen	67.96	54.59	52.03	84%
Phosphorus	6.76	5.41	5.25	89%
Sediment	6,561	6,257	6,872	100%

The summary progress from the CBP partnership's modeling tools for 2009 and 2025 incorporate BMP credit duration. The CBP partnership decided to remove reported BMPs from the model simulation at the end of their established credit durations unless verified by the state as inspected and continuing to function as designed. Verification is labor intensive but critical for ensuring practices are implemented and reductions are credited. The CBP partnership is exploring opportunities for new technologies and systems to streamline verification. Virginia is expected to provide detailed programmatic milestones to support these BMP implementation targets. In the sector-specific sections below, EPA provides its evaluation of these programmatic milestones and the connection to increased implementation.

Monitoring

EPA encourages each of the Milestone Partners to review and assess both the available real-world monitoring data and the most recent modeling results (Progress Year 2025) to support meeting the priority strategies and actions identified in the final 2026-2027 milestones. Milestone Partners can use the [Chesapeake Assessment Scenario Tool \(CAST\)](#) to access the latest modeled progress results and build scenarios estimating future nitrogen, phosphorus, and sediment loads. The CBP partnership's Chesapeake Bay Nontidal Water Quality Monitoring Network, [supported by twenty-five groups](#) representing local, State, and Federal agencies, including the 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 to provide monitoring-based information about the amount of nitrogen, phosphorus, and sediment entering the Chesapeake Bay through its nontidal rivers. These data inform watershed management by providing information on which to base restoration and conservation actions. The most recent results (www.usgs.gov/CB-wq-loads-trends) for the full 123-station network over the long-term 1985-2023 and short term 2014-2023 were published in March 2025.

Additionally, the [Monitored and Expected Total Reduction Indicator for the Chesapeake \(METRIC\) tool](#) can be used to compare observed water-quality trends with expected outcomes based on management actions, helping to clarify progress and guide priorities.

Future EPA evaluations will continue to stress the importance of using both modeling and monitoring information to target water quality actions such as milestone commitments to maintain and accelerate meeting the partnership's water quality targets. This integrated approach supports more accurate assessments and reduces misinterpretation, ultimately aiding partnership efforts to maintain and accelerate restoration and conservation efforts to achieve the water quality targets.

Source Sector Review

Agriculture

Virginia is predominantly relying on agriculture BMP implementation to meet its interim water quality targets. Virginia continues to make incremental progress toward its goals, but EPA expects Virginia to accelerate BMP implementation in the agricultural sector.

2024-2025 Milestone Achievements

- Reissued the Virginia Pollution Abatement (VPA) Regulation and General Permit for Animal Feeding Operations and Animal Waste Management prior to the target date/on time.
- Appropriated \$144.3 million in FY2025 and \$155.6 million in FY26 to Soil and Water Conservation Districts for implementation of agricultural best management practices in the Chesapeake Bay watershed, fully funding the agricultural needs assessment in both years.
- Expanded the number of Soil and Water Conservation Districts implementing the Whole Farm Approach to 18. Provided an additional \$7 million in FY2025 and \$60.9 million in FY2026 to support implementation of the Whole Farm Approach.
- Completed over 700 compliance inspections and communicated nutrient management plan and stream exclusion requirements of Virginia Code § 62.1-44.121 and the benefits of the Whole Farm Approach during these inspections.
- Increased funding for the Poultry Litter Transport Program, with 47,272.45 tons of litter transported during FY25 through this program.
- Completed the milestone to report past stream exclusion practices implemented through the Agricultural Stewardship Act program, resulting in an additional 117,257 linear feet of streambank protected and 371 acres of buffer reported.

2024-2025 Milestones Not Achieved

- Did not complete conservation practice re-verification pilot projects initiated under the data sharing agreement with the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS).

2026-2027 Milestone Strengths

- Commits to continue increasing adoption of nutrient management plans, resource management plans, and other conservation plans, as well as promotion of the Whole Farm Approach; commits to revise Nutrient Management Regulations.

- Commits to expanding participation in establishing and conserving riparian tree buffers across the agricultural landscape through the Riparian Forests for Landowners (RFFL) program and collaboration with federal and local conservation partners.
- Commits to outreach to encourage participation in the Virginia Department of Agriculture and Consumer Services (VDACS) Dairy Producers Margin Coverage Premium Assistance Program.
- Commits to explore opportunities to leverage agricultural certainty programs.

Key Areas to Address in the 2026-2027 Milestone Period and beyond

- Continue to increase opportunities to accelerate implementation of priority agriculture BMPs to target nonpoint sources of nitrogen, phosphorus, and sediment.
- Maintain agricultural compliance inspections and outreach concerning the nutrient management plan and stream exclusion requirements of § 62.1-44.121. Virginia completed more than 700 inspections over the 2024-2025 progress period but only estimates 450 total inspections for the 2026-2027 period.

Urban/Suburban Stormwater

2024-2025 Milestone Achievements

- Reissued the Phase II individual MS4 permit for Virginia Department of Transportation as well as the expired Phase I MS4 permits.
- Appropriated record funding for the Virginia Conservation Assistance Program (VCAP) to support implementation of voluntary urban stormwater BMPs.
- Completed the Stormwater Local Assistance Fund needs assessment to estimate the amount of matching grant funding local governments require for eligible stormwater management and nutrient reduction projects.
- Combined Virginia Erosion and Sediment control regulations and Virginia Stormwater Management Program into renamed Virginia Erosion and Stormwater Management regulation.
- Revised the Virginia Stormwater Management Handbook.
- Sustained investment in living and nature-based shoreline restoration and flood-resilience solutions, including support for the Living Shoreline Collaborative, development of monitoring tools like ShoreWatch, and funding of innovative shoreline ecosystem-service and resilience projects across coastal communities.

2024-2025 Milestones Not Achieved

- Did not complete its milestone commitment to evaluate nutrient management planning under the Erosion and Sediment Control Regulations, which had been carried over from the 2022-2023 milestone period.
- Did not complete its milestone commitment to develop a collaborative structure for implementing urban BMPs in non-MS4 areas.

2026-2027 Milestone Strengths

- Commits to reissue the Arlington County MS4 permit.
- Commits to increase support for voluntary stormwater BMP retrofits through the Virginia Conservation Assistance Program (VCAP).
- Commits to focus implementation efforts in the unregulated developed sector where additional progress is needed to meet Phase III WIP targets.

Key Areas to Address in the 2026-2027 Milestone Period and beyond

- Continue to develop the mechanisms and collaborative support systems to accelerate BMP implementation in unregulated, non-MS4 developed areas.
- Continue to accelerate BMP implementation in the developed (urban/suburban stormwater) sector and encourages Virginia to pursue further opportunities across the regulated and unregulated developed sector, especially because that sector continues to experience growth and Virginia is expecting additional nutrient reductions from the developed sector according to its Phase III WIP.

Wastewater Treatment Plants and Onsite Systems

2024-2025 Milestone Achievements

- Completed 325 Septic BMPs in FY2025 using Clean Water Act Section 319 funding.
- Completed amendments to the Sewage Collection and Treatment Regulations ahead of schedule.
- Completed 123 onsite sewage system repairs and public sewer connections, exceeding the 100 expected for the milestone period.

2024-2025 Milestones Not Achieved

- None.

2026-2027 Milestone Strengths

- Commits to continue focusing on funding and programs to support implementation of septic BMPs; establishes clear septic BMP implementation targets for the milestone period.

Key Areas to Address in the 2026-2027 Milestone Period and beyond

- Complete ongoing milestones carried over from the 2024-2025 period.

Growth, Offsets, and Trading

2024-2025 Milestone Achievements

- Published annual watershed general permit nutrient loads reports for 2024 and 2025 on the agency website.
- Published annual watershed general permit trades reports for 2024 and 2025 on the agency website.

2024-2025 Milestones Not Achieved

- None.

2026-2027 Milestone Strengths

- Commits to administering a Pay-for-Outcomes (PFO) nonpoint source pilot program to reduce nonpoint source pollution through funding innovated projects and for identifying numeric reduction goals for 2026 (6,300 lbs N) and 2027 (38,600 lbs N).

Key Areas to Address in the 2026-2027 Milestone Period and beyond

- Continue to work with EPA in offsetting any new or increased nutrient and sediment loads in Virginia's portion of the Chesapeake Bay watershed.

Forestry

2024-2025 Milestone Achievements

- Expanded tree planting and riparian forest buffer conservation and establishment through impactful programs such as the RFFL initiative, the Virginia Trees for Clean Water grants, and implementation of the Riparian Forest Buffer Action Plan.
- Hired coordinators to support implementation of projects related to two Sentinel Landscape designations for military infrastructure in eastern Virginia (Potomac/Tidewater).
- Completed projects under the newly developed Community Forest Revitalization program.
- Sustained programs and actions which promote adherence to the Silvicultural Water Quality Law and support implementation of Forest Harvesting Practices, including supporting logger education programs through the Sustainable Harvesting and Resource Professional (SHARP) Logger and Sustainable Forest Initiative (SFI) and training programs.

2024-2025 Milestones Not Achieved

- Did not complete implementation of Department of Forestry's Healthy Watershed Initiative recommendations.

2026-2027 Milestone Strengths

- Provides numeric implementation results for a range of Forestry Milestones, which provide a clear indication of the on-the-ground benefits of these programmatic activities.
- Commits to protecting riparian forest buffers and increasing buffer establishment in both rural and urban areas through various state programs (e.g., RFFL, Riparian Buffer Tax Credit Program).
- Commits to leverage the Throwing Shade Virginia program and Community Forest Revitalization Program to expand community tree planting and urban green space initiatives.
- Commits to developing a Forest Conservation Plan, which will identify threats to forest conservation and prioritize potential conservation efforts to environmentally sensitive areas.

Cross-Sector

2024-2025 Milestone Achievements

- Completed guidance to aid localities in adopting provisions of amended Chesapeake Bay Preservation Act regulations.
- Secured grant to fund 3 large-scale wetland shoreline protection projects within the Chesapeake Bay watershed.
- Funded 85-acre wetland enhancement project at Mattaponi wildlife management area through the Virginia Migratory Waterfowl Stamp Grant Program.

2024-2025 Milestones Not Achieved

- Did not achieve the denitrifying bioreactor program installation objectives.

2026-2027 Milestone Strengths

- Commits to initiate a pay-for-outcomes pilot program to fund nonpoint source reduction projects and ties this program to specific nitrogen reduction goals.

Potential Federal Actions and Assistance

EPA remains prepared to assist each of the seven watershed jurisdictions in implementing the 2026-2027 milestones. EPA will work with each jurisdiction to develop specific oversight and assistance activities to provide prioritized support for implementation efforts, including funding, technical assistance and analysis, training, and regulatory reviews.

EPA plans to continue to commit staff, contractual and funding resources to support the seven watershed jurisdictions in implementing the 2026-2027 milestones and future two-year milestones. This support includes evaluation of the most-effective practices and locations; annual funding assistance to address priority implementation needs; evaluation of Bay jurisdictions' implementation capacity under various staffing, funding, regulatory and programmatic scenarios; local planning outreach; legislative and regulatory gap analysis; and monitoring trend analyses.

In addition, EPA will continue to work with federal partners to provide leadership and coordinate with Bay jurisdictions on WIP and two-year milestone implementation to reduce pollutants from federal lands. EPA will continue its commitment to track annual progress of the Bay jurisdictions and make those results available to the partnership and the public. [See: <https://www.epa.gov/chesapeake-bay-tmdl/epa-oversight-watershed-implementation-plans-wips-and-milestones-chesapeake-bay> and <https://www.chesapeakebay.net/news/pressrelease/chesapeake-bay-watershed-jurisdictions-continue-working-toward-nitrogen-and-phosphorus-goals-with-sediment-goal-already-achieved>]