

## **EPA EVALUATION OF WEST VIRGINIA'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 West Virginia to the statewide and state-basin goal of 60 percent of the necessary reductions compared to 2009.

According to the data provided by West Virginia for the 2017 progress run, West Virginia achieved its statewide 2017 targets for nitrogen, phosphorus, and sediment.

West Virginia is on track to meet its 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. West Virginia will have the opportunity to optimize its strategies to attain the 2025 targets 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 short-term (10 year) monitoring trends indicate that nutrients in the West Virginia Potomac watershed are significantly improving (decreasing) based

on data collected at the South Branch Potomac River, Cacapon River, Opequon Creek, and Patterson Creek non-tidal monitoring stations. 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, 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.

### **Agriculture – Maintain Ongoing Oversight**

#### **2016-2017 Milestone Achievements**

- Completed a Best Management Practice (BMP) verification pilot program in Hardy County that will inform implementation of West Virginia's agricultural BMP verification program.
- Completed agricultural BMP verification training to prioritize BMPs for verification and solidify roles and responsibilities in BMP verification program implementation.
- Achieved its 2025 BMP implementation targets for Nutrient Application Management and Prescribed Grazing.
- Developed a formal riparian buffer outreach strategy to increase the adoption of riparian buffers by 250 acres on an annual basis.
- The Addendum to the Conservation Reserve Enhancement Program was signed by West Virginia and the United States Department of Agriculture on September 21, 2017.

#### **2016-2017 Milestones Missed**

- None.

#### **2018-2019 Milestone Strengths**

- Agricultural milestones align with West Virginia's WIP priorities with a focus on promoting riparian buffers, cover crops, poultry litter transport and markets, verification, and Phase III WIP planning.
- Plans to maintain cover crop adoption of a minimum of 7,000 acres annually.
- Included a milestone to implement its BMP verification program and trainings for staff.
- Plans to increase litter transfer tonnage annually through the West Virginia Conservation Agency and Region 9 through outreach and increased funding.
- Commits to develop a proposal to outline potential market options for poultry litter and poultry biochar.

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

- None.

## **Urban/Suburban Stormwater – Maintain Ongoing Oversight**

### **2016-2017 Milestone Achievements**

- Completed several trainings for the Municipal Separate Storm Sewer System (MS4) communities on BMP verification and reporting, and Low Impact Development BMPs.
- Developed and continues to maintain a spatial database for all stormwater outfalls and 10 percent of existing stormwater structures with the City of Martinsburg.
- Worked with Berkeley County and the Town of Bath to include urban tree canopy goals in their respective comprehensive plans.

### **2016-2017 Milestones Missed**

- West Virginia did not complete revisions to the MS4 Modification Application within this milestone period.
- West Virginia did not reissue its National Pollutant Discharge Elimination System (NPDES) construction stormwater general permit within this milestone period.

### **2018-2019 Milestone Strengths**

- Included milestones to reissue the MS4 permit and Oil and Gas Construction Stormwater Permit within this milestone period.
- Commits to reissue its NPDES construction stormwater general permit by December 31, 2018.
- Commits to complete revisions to the MS4 Modification Application by December 31, 2018.
- Commits to incorporate BMPs in its Phase III WIP to address growth in urban/suburban stormwater loads.
- Continues to encourage the use of BMPs that address water quality (e.g., Low Impact Design and Better Site Design), with a focus on New Performance Standard BMPs for both runoff reduction and stormwater treatment.
- Continues outreach to communities without stormwater regulations to encourage stormwater BMP implementation and maintenance.
- Commits to work with local governments and stakeholders in the development of its Phase III WIP to address runoff from developed lands, particularly in non-regulated areas.
- Commits to collaborate with Cacapon Institute to ensure inspection and reporting of BMPs.
- Commits to coordinate with federal partners to ensure accurate submission of stormwater BMPs at federal facilities.
- Continues trainings targeted to the MS4 communities and other interested parties on Low Impact Development BMPs.

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

- EPA recommends West Virginia include a milestone for improving documentation and reporting of fertilizer sales data used to track future fertilizer application rates.

**Wastewater Treatment Plants and Onsite Systems – Maintain Ongoing Oversight**

**2016-2017 Milestone Achievements**

- Updated and submitted its compliance schedules into EPA's Integrated Compliance Information System (ICIS).
- Updated inventory of wastewater treatment plants with upgrades and associated schedules.
- All wastewater treatment plants have been upgraded to address TMDL wasteload allocations.

**2016-2017 Milestones Missed**

- None.

**2018-2019 Milestone Strengths**

- Commits to input compliance schedules and orders into ICIS.
- Commits to update inventory of wastewater treatment plants with upgrades and associated schedules and submit to EPA, as needed.
- Review compliance of newly upgraded systems with NPDES permit limits.

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

- None.

**Offsets and Trading – Maintain Ongoing Oversight**

**2016-2017 Milestone Achievements**

- Continues to update and maintain its offsets tracking and accountability system in accordance with EPA expectations. Maintains a tracking list for trades and offsets.
- Commits to approve offset requests on a case-by-case basis and approved one offset within this milestone period.

**2016-2017 Milestones Missed**

- None.

**2018-2019 Milestone Strengths**

- Continues to update and maintain its offsets tracking and accountability system in accordance with EPA expectations. Maintains a tracking list for trades and offsets.
- Commits to approve offset requests on a case-by-case basis.

### **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 West Virginia by sector and basin based on West Virginia's data.—Growth projections will be updated every two years and EPA expects West Virginia to address any projected growth in its two-year milestones.

### **Other**

- EPA commends West Virginia for including milestones specific to Phase III WIP development, including plans to (1) conduct a series of Local Leadership Work Sessions to obtain input into feasible strategies for nutrient and sediment reductions, (2) coordinate the development of the Phase III WIP with West Virginia's Chesapeake Bay partners, and (3) determine implementation strategies to achieve target loads as defined in the CBP partnership's Phase 6 suite of modeling tools.
- In 2018, EPA expects that West Virginia'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. EPA recommends a 2018-2019 milestone to reflect West Virginia's commitment to this implementation effort. The BMP verification process should be updated through West Virginia's BMP Verification Program Plan (Quality Assurance Project Plan) whenever changes are made after approval by relevant CBP partnership workgroups and Goal Implementation Teams.

### **Potential Federal Actions and Assistance**

- EPA's Chesapeake Bay Program Office intends to continue to commit staff, contractual and funding resources to support of the development and implementation of each of the seven watershed jurisdictions' Phase III WIP. 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.