EPA INTERIM EVALUATION OF VIRGINIA's 2016-2017 MILESTONES

As part of its role in the accountability framework, described in the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) for nitrogen, phosphorus, and sediment, the U.S. Environmental Protection Agency (EPA) is providing this interim evaluation of Virginia's progress toward meeting its statewide and sector-specific two-year milestones for the 2016-2017 milestone period. In 2018, EPA will evaluate whether each Bay jurisdiction achieved the Chesapeake Bay Program (CBP) partnership goal of practices in place by 2017 that would achieve 60 percent of the nitrogen, phosphorus, and sediment reductions necessary to achieve applicable water quality standards in the Bay compared to 2009.

Load Reduction Review

When evaluating 2016-2017 milestone implementation, EPA is comparing progress to expected pollutant reduction targets to assess whether statewide and sector load reductions are on track to have practices in place by 2017 that will achieve 60 percent of necessary reductions compared to 2009. This is important to understand sector progress as jurisdictions develop the Phase III Watershed Implementation Plans (WIP). Loads in this evaluation are simulated using version 5.3.2 of the CBP partnership Watershed Model and wastewater discharge data reported by the Bay jurisdictions.

According to the data provided by Virginia for the 2016 progress run, Virginia is on track to achieve its statewide 2017 targets for nitrogen and phosphorus but is off track to meet its statewide targets for sediment.

The data also show that, at the sector scale, Virginia is off track to meet its 2017 targets for nitrogen reductions in the Agriculture, Urban/Suburban Stormwater and Septic sectors and is also off track for phosphorus in the Urban/Suburban Stormwater sector, and off track for sediment in the Agriculture and Urban/Suburban Stormwater sectors. However, data that are being gathered for the Bay TMDL midpoint assessment could show that changes in levels of effort may be necessary in order to achieve the 2025 targets for all three pollutants. The Phase III WIP, combined with supporting two-year milestones, will address reductions needed from 2018 to 2025.

Through the CBP partnership's Chesapeake Bay Watershed Water Quality Monitoring Network, supported by U.S. Geological Survey (USGS), the Susquehanna River Basin Commission, and the Bay jurisdictions, the monitoring trends indicate that nitrogen and phosphorus loads are improving (decreasing) over the past 10 years for the Rappahannock River but not improving for the Mattaponi River. Trends data from the River Input Monitoring (RIM) stations indicate that nitrogen loads are improving (decreasing) for the James River, not improving for the Pamunkey River, and there is no significant nitrogen load reduction for the Appomattox River. For phosphorus, trends data does not show any significant load reduction over the 10-year period for the Pamunkey, James and Appomattox rivers. The area draining to the RIM stations covers almost ¾ of Virginia's area in the Chesapeake Bay Watershed outside of the Potomac. Among these tributaries and the two pollutants, only three in ten show improving (decreasing) loads over the past 10 years. However, nutrient loading trends are improving for the non-tidal Potomac River as a whole. Additional study will continue by USGS and others to better understand the

causes behind the short-term and long-term monitoring trends observed at all monitoring stations. The continued investment in long-term monitoring allows the CBP partnership to demonstrate observed improvements to local water quality, and to assist in identifying where additional implementation is necessary to achieve applicable water quality standards locally and in the Chesapeake Bay.

Agriculture – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Allocated supplemental funds and targeted implementation of Virginia's Department of Conservation and Recreation (DCR) priority for Stream Exclusion with Grazing Land Management pending cost-share funds that have reduced the backlog to ~$20 million statewide.
- Developed 12,000 acres of new Resource Management Plans (RMPs) in calendar year 2016. An Annual RMP Program Highlights Report was approved by the Virginia Soil and Water Conservation Board on December 7, 2016.
- Virginia's Conservation Reserve Enhancement Program contribution has increased the rate of riparian forest buffer implementation throughout the Commonwealth. A difficult Commonwealth budget during the current biennium will affect the ability to fully fund the identified needs.
- As of December 2016, 160 currently unpermitted dairies have active Nutrient Management Plans (NMPs). This represents an increase of 117 additional plans since June 2015. Fifty-five percent of currently unpermitted dairies in the Chesapeake Bay watershed have active NMPs. Virginia is receiving additional funding through the Fiscal Year 2017 United States Department Agriculture Regional Conservation Partnership Program award to support increasing NMPs on small diaries.
- As of December 2016, 610 farms that are less than 75 acres in size have NMPs. Virginia should provide the total acreage of those 610 farms to better determine where it is in terms of reaching the deliverable goal of 15,000 new acres covered under NMPs.
- Submitted one draft Virginia Pollution Discharge Elimination System (VPDES), Concentrated Animal Feeding Operations (CAFO) permit to EPA for review in 2016. However, Virginia sent the two additional draft VPDES CAFO permits to EPA for review in March 2017.

Key Areas to Address to meet 2016-2017 Milestones

- Currently 19,740 of 45,000 acres of precision agriculture are on record. EPA expects Virginia to have a process in place to meet the additional acres for precision agriculture for 2017.

Urban/Suburban Stormwater – Upgraded to Ongoing Oversight

2016-2017 Milestone Achievements

- Reissued six Phase I Municipal Separate Storm Sewer System (MS4) permits for the Hampton Roads area that became effective on July 1, 2016.
- Published the Phase II MS4 General Permit, Notice of Intended Regulatory Action on July 11, 2016. Two Technical Advisory Committee (TAC) meetings were held in October and December 2016.

- Submitted a draft statewide individual MS4 permit for the Virginia Department of Transportation (VDOT) for EPA review on December 30, 2016. EPA provided comments to Virginia Department of Environmental Quality on January 30, 2017.
- Cumulatively committed $80 million to Stormwater Local Assistance Funds in an effort to accelerate best management practice (BMP) implementation in the Urban/Suburban Stormwater sector including retrofits, filtration, and infiltration practices.
- Made significant progress in the areas of urban nutrient management and fertilizer sales data tracking.

Key Areas to Address to meet 2016-2017 Milestones

- Throughout 2016, the Alliance for the Chesapeake Bay (Alliance) has worked with local partners to add voluntary BMPs to the Stormwater Management and Restoration Tracker. Practices have successfully been entered into the system in the Richmond and Norfolk areas. The practices are verified as installed and functioning properly in the field, but due to technical issues encountered in the Google platform of the system, the Alliance has not been able to verify the data online.
- As of April 2017 there are 201 golf courses with current NMPs, covering over 20,463 acres. An additional 123 golf courses are expected to have NMP coverage by June 30, 2017.

Wastewater Treatment Plants and Onsite Systems – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Pumped out a total of 20,522 septic tanks.
- Reissuance of the Watershed General Permit was approved by the State Water Control Board on December 12, 2016.
- Virginia Department of Health (VDH) has coordinated with several local wastewater authorities and localities to identify new sewer line connections during Fiscal Year 2016. Additionally, a spatial dataset is under development of all public sewer service areas in the state. VDH has worked with localities and wastewater authorities across the state, as well as state agencies and the Chesapeake Bay Program, to gather this information.

Key Areas to Address to meet 2016-2017 Milestones

- None identified.

Offsets and Trading – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Virginia has continued to work through the Trading and Offsets Workgroup and Water Quality Goal Implementation Team to ensure that sector growth is tracked and accounted for in annual progress scenarios, while advocating that growth be explicitly accounted for in the Phase III WIP planning targets and Phase III WIP, and not as separate demonstration submittals. Virginia has agreed to continue to work with EPA on sector growth and tracking and accounting for growth.

Key Areas to Address to meet 2016-2017 Milestones

- The proposed nonpoint nutrient credit certification regulations will be going out for another public comment period once the State Water Control Board approves this path at its June

2017 board meeting. It is anticipated that these regulations will be finalized by the end of 2018, which is two years beyond the original proposed schedule. Virginia continues to operate nutrient credit trading programs under existing laws and regulations.

- EPA expects Virginia to share information with EPA regarding the use of offsets for new facilities like the proposed new paper plant on the James River.
- EPA expects Virginia to evaluate whether increases in poultry manure and poultry house construction activities are resulting in new or increased nutrient and/or sediment loads.
- EPA recommends that Virginia consider including language in its MS4 permits that would factor the use of trading and enable progress to be made toward Bay TMDL targets.

Other

2016-2017 Milestone Achievements

- None identified.

Key Areas to Address to meet the 2016-2017 Milestones

- Missed deadlines for reevaluation of chlorophyll-a criteria.
- Missed the deadline to utilize the model to assess chlorophyll-a criteria alternatives including existing standards. A James River Water Quality Model Workshop was held in October 2016 to explore scenario output and results indicating higher chlorophyll criteria non-attainment than original EPA model predictions for full Bay TMDL implementation.

Potential Federal Actions and Assistance

- EPA will upgrade Virginia's Urban/Suburban Stormwater sector to Ongoing Oversight as Virginia reissued all Phase I MS4 permits and is addressing the issues identified in EPA's 2012 Stormwater Assessment.

Suggested Considerations for Development of the Phase III WIP and 2018-2019 Milestones

Any recommendations in this section for the Phase III WIP and 2018-2019 milestones are in addition to the Interim Phase III WIP Expectations.

- EPA expects the James River Phased Implementation/Chlorophyll Study to result in final recommendations as to whether or not to propose revisions to Virginia's current numeric water quality criteria for chlorophyll-a in the James River. If recommended, Virginia is expected to propose any such revisions to the State Water Control Board by December 2017 to ask for approval to go to public comment.
- EPA expects Virginia to address the wide annual fluctuation in state agricultural cost share funds in order to ensure sufficient funding to support Virginia's heavy reliance on voluntary, incentive-based programs for reaching its agricultural reduction targets.
- Virginia has stated in the MS4 permit fact sheets that permittees will have three permit cycles to achieve the Bay TMDL goals. EPA expects the Commonwealth to revisit strategies in its Phase III WIP to ensure practices are in place across all sectors by 2025 to achieve applicable water quality standards.
- EPA recommends Virginia continue its leadership role in the Federal Facilities Workgroup (FFW) and contribute to continuing the progress made in reporting BMP data received from the federal agencies. The FFW will also rely on Virginia's input to ensure federal facility

targets, the use of the Phase 6 watershed model, and federal facility-content in the Phase III WIPs are fully supportive of Virginia'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.