

EPA INTERIM EVALUATION OF VIRGINIA'S 2014-2015 MILESTONES

The U.S. Environmental Protection Agency (EPA) is providing this interim evaluation of Virginia's progress towards meeting its 2014-2015 sector-specific milestones and Watershed Implementation Plan (WIP). The Chesapeake Bay restoration operates through a measurable accountability framework. This framework includes the WIPs, annual progress reviews, and two-year milestones. Jurisdictions have the opportunity to adaptively manage their plans and make necessary adjustments to stay on track within this framework and at a midpoint assessment. In 2016, EPA will evaluate whether Virginia achieved its 2014-2015 milestones and has commitments to achieve the Chesapeake Bay Program partnership goal of practices in place by 2017 that would achieve 60% of the nitrogen, phosphorus and sediment reductions necessary to achieve water quality standards in the Bay compared to 2009.

Load Reduction Review

When evaluating 2014-2015 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% of necessary reductions compared to 2009. According to the data provided by Virginia for the 2014 progress run, Virginia is on track to meet the overall 2017 targets for nitrogen and phosphorus but not on track for meeting the sediment target.

Based on the Commonwealth's WIP commitments for each source sector by 2025, Virginia is off track for achieving the nitrogen and phosphorus targets for the urban sector and the nitrogen target for the septic sector. Virginia is off track for achieving the sediment targets in the agriculture and urban sectors.

While Virginia did increase its implementation of best management practices (BMPs) during the 2014 reporting period, additional BMP implementation beyond what was anticipated when the 2014-2015 milestones were developed may be necessary to achieve the sediment targets. New information that the Chesapeake Bay Program (CBP) partnership approved for use in its tools to track progress indicates that since 2007, Virginia has seen changes in agricultural production beyond what was anticipated when the 2014-2015 milestones were developed. These changes in agricultural production have resulted in increases in estimated sediment loads and decreases in estimated nutrient loads to the Chesapeake Bay. EPA expects these changes and other new information as appropriate will be used in the development of future milestones, which is consistent with the adaptive management framework. EPA recognizes that nutrient loads are the primary limiting factors toward achieving water quality standards in the Chesapeake Bay.

2014-2015 Milestone Achievements

Agriculture – Ongoing Oversight

- Virginia is generally on track for meeting its programmatic milestones.
- Virginia obligated or expended almost \$25 million in the Chesapeake Bay watershed since the end of 2012, including \$1,735,000 in Chesapeake Bay Grant funding, for stream exclusion in order to continue to support this practice at 100% through fiscal year 2015 (June 30, 2015).

- Virginia expects to have 274 Resource Management Plans (RMPs) developed by the end of 2015, significantly exceeding its 2014-2015 milestone goal of 40 RMPs.
- Virginia issued its first two Virginia Pollutant Discharge Elimination System (VPDES) Concentrated Animal Feeding Operations (CAFO) permits in February 2015.

Urban/Suburban Stormwater – Enhanced Oversight

- Has either issued, public noticed or submitted for EPA review all remaining, expired Phase I Municipal Separate Storm Sewer Systems (MS4) permits.
- Issued Chesapeake Bay Total Maximum Daily Load (Bay TMDL) Action Plan Guidance in August 2014 with revisions in May 2015 and working with Phase II MS4s to submit plans in 2015.
- Extended coverage of the Phase II Small MS4 General Permit to all small MS4s newly designated based on the 2010 Census in 2014.
- Providing \$1.5 million in EPA Chesapeake Bay Regulatory and Accountability Program grant funds to localities for cleanup of historic urban best management practice (BMP) data.
- Awarded \$45 million to localities for stormwater improvements from the state's Stormwater Local Assistance Fund grants since July 2013. This 50/50 grant program will produce more than \$90 million in urban BMP implementation. EPA expects these efforts and additional implementation, not just better reporting of BMPs, to get nutrient and sediment reductions from urban and suburban stormwater sector on track.

Wastewater Treatment Plants and Onsite Systems – Ongoing Oversight

- The Notice of Intended Regulatory Action for the reissuance of watershed general permit including reduced wasteload allocations (WLAs) in the James River basin as indicated in Bay TMDL Appendix X has been issued and a public comment period was held from February 23 to March 25, 2015.
- Discussions are planned to solicit the information from the wastewater authorities when onsite facilities are connected to public sewers.

Offsets and Trading – Ongoing Oversight

- Executive review of the draft proposed regulations expanding the existing nutrient credit and stormwater offset program were completed and a public comment period was opened on December 29, 2014 on the regulations. Two public hearings occurred the week of February 9, 2015. The public comment period closed on March 16, 2015.
- Virginia Department of Environmental Quality (DEQ) released an update to the Nutrient Credit Trading Ratio Study Report for public comment. The public comment period closed on March 16, 2015.
- Completed initial study on the cost-effectiveness of nutrient credit use as an option for Virginia Department of Transportation (VDOT) stormwater permitting requirements. Several VDOT projects purchased nutrient offset credits to comply with state-issued VDOT permit.
- DEQ published the 2013 Nutrient Loads Report and the 2013 Nutrient Trades Report.

Improvements to Meet 2014-2015 Milestones and Maintain WIP Progress

Agriculture – Ongoing Oversight

- EPA expects Virginia to meet its 2015 milestone of evaluating over half of its small Animal Feeding Operations by the end of 2015.
- EPA recommends Virginia provide the current numbers for milestone A.7 (number of unpermitted dairies with nutrient management plans, or NMPs) and milestone A.9 (number of acres in precision agriculture) to track progress towards its milestone goals. EPA is encouraged by recent efforts to provide the staff necessary to advance this commitment. Specifically, Virginia Department of Conservation and Recreation (DCR) has hired, through a contract with Virginia Tech University, two nutrient management specialists to concentrate wholly on small farms. DCR also has three contractors involved in writing nutrient management plans for un-permitted animal operations. DCR is also working to promote the precision agricultural practice with both Virginia Tech and Virginia State University. Acreage will be reported semiannually.
- EPA expects Virginia to submit three draft VPDES CAFO permits for poultry to EPA in 2015 in order to meet its milestone goal of issuing three VPDES CAFO permits within the Bay watershed by the end of 2015.

Urban/Suburban Stormwater – Enhanced Oversight

- Reissue remaining, administratively continued Phase I MS4 permits.
- Submit draft MS4 permit for VDOT to EPA for review in 2015.
- EPA expects DEQ to effectively review and approve Bay TMDL Action Plans that MS4 permittees will start to submit in 2015.
- Complete Phase 2 development of the Construction General Permit System for tracking urban BMPs to provide GIS capability and allow communities to report additional information on permit modifications, inspections and implementation.
- Despite programmatic progress to increase the implementation, tracking and reporting of urban nutrient management in Phase II MS4 communities, golf courses and state-owned land, the Commonwealth is not on track to meet its urban nutrient management (UNM) targets. EPA expects Virginia to demonstrate how programmatic milestones will allow the Commonwealth to achieve its 2025 WIP targets for UNM or commit to additional programs and/or practices to meet nutrient and sediment reduction targets for the urban sector.
- Ensure compliance with Virginia Fertilizer Law amendments effective December 31, 2013 and July 1, 2014 that limit phosphorous and slow-release nitrogen in lawn maintenance fertilizers.
- EPA recommends that Virginia report its progress for implementing stormwater BMPs associated with new construction, redevelopment and retrofits in accordance with the performance standards and retrofits methods approved by the Chesapeake Bay Partnership in 2012.

Wastewater Treatment Plants and Onsite Systems – Ongoing Oversight

- EPA encourages Virginia Department of Health (VDH) to establish a process for wastewater authorities to inform VDH when onsite facilities are connected to public sewers. The Virginia Environmental Information System database is capable of tracking onsite facilities

that are connected to public sewers when the information is received from the locality. Discussions are planned to solicit the information from the wastewater authorities.

Offsets and Trading – Ongoing Oversight

- Continue development of the online nutrient credit registry during 2015. EPA assumes credits and loads used for trades and offsets can be tracked and accounted for with this registry.
- Finalize the proposed regulations that establish certification procedures and requirements as required by state law.
- Finalize the Nutrient Credit Trading Ratio Study Report.

Tracking, Reporting and Verification

- Continue making improvements to an existing tracking and accountability system or develop a new system for tracking new or increased loads so that it is operational by December 31, 2015.

Expectations and Recommendations for Development of the 2016-2017 Milestones

Load Reductions

- EPA recommends that Virginia review their programs to offset additional sediment loads and set milestones to ensure Bay TMDL goals can be met in light of the new information incorporated into CBP partnership's tools for tracking progress, which indicates increases in the estimates of sediment loads to the Chesapeake Bay since 2007 beyond what was previously anticipated.
- USGS short-term (2001-2010) trends based on monitoring data indicate increasing phosphorus loads in the Rappahannock, Pamunkey, James, and Appomattox watersheds (Hirsch, Moyer and Phillips, 2013). Based on these monitoring results and other available science, EPA believes that the level of effort to manage phosphorus may increase and recommends that Virginia consider additional actions to manage phosphorus in its 2016-2017 milestones and Phase III WIP.

Agriculture

- Given Virginia's heavy reliance on voluntary programs to reach its agricultural nutrient and sediment reduction goals, EPA expects Virginia to work with the Chesapeake Bay Program Office (CBPO) to project the necessary pace of voluntary agriculture program implementation to stay on track with nutrient and sediment reduction goals and set milestones accordingly. For example:
 - Milestones for number of RMP plans developed and number of acres under specific RMP BMPs.
 - Milestones for number of NMPs on un-permitted dairies. EPA recommends that Virginia consider specific programmatic milestones for outreach to un-permitted dairies as well. Virginia may consider setting milestones for un-permitted confined beef operations, since DCR is targeting these facilities for NMPs as well since there are only five permitted in Virginia.
 - Milestones for the number of acres under stream exclusion, exclusion fencing and vegetative buffers from financial incentive programs.

- EPA expects Virginia to project expected increases/expansions in poultry houses and quantify and offset any resulting increase of nutrients.
- EPA recommends that Virginia include milestones for ensuring that Virginia has the programs and funding in place to support farmers in properly managing phosphorus on agricultural lands based on the latest science to address manure nutrient imbalances in regions with dense animal agricultural operations. These milestones could build off of DCR's recent work with Virginia Tech to publish a program to address whole farm balance in nitrogen and phosphorous management.

Urban/Suburban Stormwater

- EPA expects Virginia to have all practices in place to meet Bay TMDL allocations by 2025, despite delays in MS4 permit issuance. EPA expects the Commonwealth to use the 2016-2017 milestones and Phase III WIPs to ramp up implementation in the urban sector and/or make any changes to overall load reduction strategies.
- EPA expects Virginia to include a milestone to submit a draft Phase I MS4 permit for Arlington County and Phase II General Permit for Small MS4s to EPA for review in advance of reissuance in 2018.
- EPA recommends specific, quantitative milestones that demonstrate compliance with and enforcement of MS4, industrial stormwater and construction general permit requirements, such as number of inspections and follow-up actions as well as compliance rates.

Wastewater Treatment Plants and Onsite Systems

- EPA recommends that Virginia incorporate monitoring data where possible in their tracking and reporting of nonsignificant wastewater treatment plants starting in the 2016 progress run. For all nonsignificant facilities, Virginia relies upon default nutrient and sediment concentration values or one-time estimates. Additional monitoring data would allow Virginia to verify that nonsignificant facilities are achieving their aggregate Bay TMDL wasteload allocations.

Offsets

- EPA will work with Virginia to continue to identify new sector loads and offset these within the appropriate timeframe and to continue to track and account for these new loads identified in sector growth demonstrations.

Next Steps

- EPA may upgrade Virginia's urban/suburban stormwater sector to ongoing oversight in 2016 if Virginia reissues all administratively continued MS4 permits, submits a draft MS4 permit for VDOT, and shows adequate resources and progress to review and approve Bay TMDL Action Plans.
- EPA will provide an analysis of 2013 sector load growth demonstration to Virginia by June 30, 2015. EPA expects Virginia to update the sector load growth demonstration with new information including EPA's findings during the 2016-2017 milestone period.
- EPA will work with Virginia to ensure EPA grants continue to be used in a timely and effective way to address high priority needs.

- EPA will work with federal partners to provide leadership and coordinate with the jurisdictions on WIP and milestone implementation. EPA and jurisdictions are working with federal agencies in 2015 to set federal facility-specific pollution reduction targets for the 2016-2017 milestones and on methods for enhanced reporting of BMPs.
- EPA will review draft BMP verification program quality assurance project plans that all Chesapeake Bay watershed jurisdictions, including Virginia, are expected to submit by June 30, 2015, consistent with the schedule and guidelines adopted by the CBP Principals' Staff Committee. EPA expects Virginia to begin implementing its BMP tracking, reporting and verification program in January 2016 based upon review and approval by EPA, with full implementation by 2018.
- EPA applauds Virginia's milestone to review and correct its data on BMPs reported to CBPO. EPA expects Virginia to review and improve its historical BMP record for all sectors, including wastewater discharge information. Virginia should submit draft historical data, along with documentation of methods and assumptions, to the CBPO by June 30, 2015, and final historical data by September 30, 2015, as part of CBP's midpoint assessment of the Bay TMDL.