

## **EPA EVALUATION OF PENNSYLVANIA'S 2014-2015 and 2016-2017 MILESTONES**

The U.S. Environmental Protection Agency (EPA) is providing this evaluation of Pennsylvania's progress toward meeting its 2014-2015 milestones and its sector-specific commitments for the 2016-2017 milestone period.

### **Load Reduction Review**

When evaluating 2014-2015 milestone implementation and the 2016-2017 commitments, EPA is comparing progress and commitments 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.

According to the data provided by Pennsylvania for the 2015 progress run<sup>1</sup>, Pennsylvania achieved its state-wide 2015 target for phosphorus, but did not meet its 2015 state-wide target for nitrogen or sediment.

Based on Pennsylvania's anticipated reductions for nitrogen, phosphorus and sediment during the 2016-2017 milestone period, Pennsylvania is on track to meet its 2017 state-wide sediment target but not on track to meet its state-wide nitrogen and phosphorus targets. Pennsylvania will need to place considerably greater emphasis on increasing implementation in the agriculture sector to address nitrogen and phosphorus, and in the urban sector for all three pollutants to meet its Watershed Implementation Plan (WIP) and Chesapeake Bay Total Maximum Daily Load (Bay TMDL) commitments by 2025. In addition, data that is 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.

Pennsylvania released, in January 2016, its "Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort" ("Reboot Strategy") which describes Pennsylvania's intent to ramp up efforts in compliance, data tracking and reporting, and target funding for Best Management Practices (BMP) implementation in an effort to be on track to meet its 2025 goals. Pennsylvania's current draft 2016-2017 milestones include programmatic milestones to increase compliance with state regulations and to improve data tracking, but do not include numeric milestones to increase implementation of agricultural conservation practices that would assist Pennsylvania in getting back on track to meeting its 2025 Bay TMDL targets.

Pennsylvania's numeric milestones do not reflect an increase or prioritization of BMPs intended to reduce nutrient and sediment pollutant loads to get back on track to meeting its 2025 Bay TMDL goals. EPA recommends that Pennsylvania include additional numeric milestones for increased BMP implementation and programmatic milestones that support the BMP implementation, such as milestones to target grant funding requests towards priority BMPs in priority geographic areas.

EPA expects Pennsylvania to describe the process and timeline for engaging local stakeholders, in the development of the Phase III WIP, upon receipt of EPA's Draft Phase III WIP Expectations, to develop ideas on how to best reduce nutrients and sediment from each sector. Examples include following up

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<sup>1</sup> Loads simulated using 5.3.2 version of the Chesapeake Bay Watershed Model and wastewater discharge data reported by the Bay jurisdictions.

from key stakeholder meetings such as the “Pennsylvania in the Balance” conference and re-engaging the Pennsylvania WIP Management and sector teams.

Further, EPA recommends that Pennsylvania, along with all Susquehanna River states, begins to develop a strategy to further reduce nutrient and sediment loads to the Chesapeake Bay given that a greater portion of pollutants than previously anticipated is passing through the Conowingo Dam and into the Chesapeake Bay as a result of the reservoirs filling up and losing their trapping capacity.

### **Agriculture – Maintain Backstop Actions Level**

#### **2014-2015 Milestone Achievements**

- Conducted cropland transect surveys to track and report cover crop and conservation tillage data and will be conducting these surveys in the future.
- As of June 2015, Pennsylvania funded the development of 433 nutrient management/manure management plans and 203 agriculture erosion and sediment (E&S) control plans.

#### **2014-2015 Milestones Missed**

- Committed to perform three regional watershed assessments in the Chesapeake Bay watershed in both 2014 and in 2015, for a total of six. Three regional watershed assessments were conducted in 2014 but none were conducted during 2015 due to Pennsylvania assessing the compatibility of these assessments with the “Reboot Strategy”.
- Did not complete the development and implementation of its tracking and reporting system for BMPs in 2015.
- Did not increase implementation of priority practices to improve water quality such as grass buffers, animal waste management and nutrient management.

#### **2016-2017 Milestones Strengths**

- Developed a Strategy to Enhance Pennsylvania’s Chesapeake Bay Restoration Effort or “Reboot Strategy”, which outlines actions to aid Pennsylvania to get back on track to meet its 2025 goals and is the basis for its 2016-2017 milestones. This was accompanied by a 29-page Draft Implementation Plan which provided detail on the task and assignments for action and resources committed. Pennsylvania also modified its EPA grant workplans to better align with the “Reboot Strategy” commitments.
- Committed to increase compliance inspections to ensure farms have the required manure management plans and agriculture E&S control plans with a minimum of 50 inspections per year per each of the 42 Chesapeake Bay Technicians.
- Developed a milestone for Pennsylvania regional staff to perform 1,100 agricultural compliance inspections in 2016. EPA supports Pennsylvania’s commitment to initially focus these inspections at operations that are not Concentrated Animal Feeding Operations (CAFO) and Concentrated Animal Operations (CAO).
- Developed a mechanism to collect more agricultural BMP data and to verify 10 percent of the implemented practices reported.

#### **Key Areas to Address in 2016-2017 Milestone Period**

- **Increasing Implementation:** EPA expects Pennsylvania to revise its milestones to include increased levels of priority BMP implementation resulting from both programmatic improvements and increases in implementation of priority practices.

- **Targeting Geographic Areas:** EPA expects Pennsylvania to develop the list of geographic areas with the greatest nutrient pollutant load reduction potential for the Chesapeake Bay in order to target funding to the most effective practices and watersheds.
- **Targeting Funding:** EPA expects Pennsylvania to include a milestone to review the results of the 2016 Growing Greener and Chesapeake Bay Special Projects funding in effectively targeting priority practices in priority watersheds and make necessary refinements for 2017 grant funding.
- **Managing Phosphorus:** EPA expects Pennsylvania to have the programs in place to support farmers in properly managing phosphorus on agricultural lands based on the latest science. For example, a commitment to update Pennsylvania's phosphorus index with the latest science during this milestone period could be included.
- **Crediting Practices:**
  - EPA recommends a milestone on the employment of the BMP tracking software for each Conservation District by a date certain.
  - EPA recommends a milestone for Pennsylvania to provide the necessary swine phytase data to the Chesapeake Bay Program's (CBP) Agriculture Workgroup to more accurately and fully credit this practice in Pennsylvania and in the CBP Chesapeake Bay Watershed Model.

### **Urban/Suburban Stormwater – Maintain Backstop Actions Level**

#### **2014-2015 Milestone Achievements**

- Conducted 12 Municipal Separate Storm Sewer System (MS4) related workshops to educate the regulated community.
- Developed a model MS4 TMDL plan and a model Chesapeake Bay Pollutant Reduction Plan and posted to Pennsylvania's website. These model plans will be updated in the 2016-2017 milestone period and include specific reduction targets for nitrogen, phosphorus and sediment.
- Exceeded its goal by performing approximately 500 termination inspections for stormwater construction permits.
- Succeeded in using the performance standard reporting for the 2015 numeric stormwater progress information.

#### **2014-2015 Milestones Missed**

- Did not increase implementation in urban areas to address the load reductions currently committed to from this sector.
- Did not develop or disseminate a homeowner information booklet for stormwater BMPs.
- Did not complete a needs assessment for stormwater tracking and data management. The 2014-2015 status update notes that Pennsylvania has drafted a scope of work for contractor assistance for this project; but this does not appear in the 2016-2017 milestones.

#### **2016-2017 Milestones Strengths**

- Committed to install stormwater BMPs with the numeric goal of 238 total acres treated.
- Committed to provide training and outreach to its MS4 communities on how to comply with permit requirements and be consistent with the Bay TMDL. Eleven workshops are planned for 2016.
- Committed to implement a Circuit Rider Program to provide one-on-one technical assistance to municipalities in meeting the minimum control measures of the Phase II MS4 permit.
- Committed to reissue its construction stormwater general permit (PAG-02) by December 2017.
- Committed to update its stormwater BMP manual by December 2017.

### **Key Areas to Address in 2016-2017 Milestone Period**

- EPA expects Pennsylvania to develop a plan for how to redistribute urban loads and provide reasonable assurance for those reductions. EPA recommends Pennsylvania consider all sectors when doing so.
- EPA expects Pennsylvania to include a milestone to develop a trading and offset policy for post construction stormwater.
- EPA recommends Pennsylvania include a milestone to document use of non-agricultural fertilizer sales in order to continue receiving credit for urban phosphorus fertilizer reductions.

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

#### **2014-2015 Milestone Achievements**

- Continued to make progress with issuing permits that are consistent with the assumptions and requirements of applicable Bay TMDL wasteload allocations. As of November 2015, 19 of the remaining 23 facilities have cap loads established in the final National Pollutant Discharge Elimination System (NPDES) permits.

#### **2014-2015 Milestones Missed**

- None identified.

#### **2016-2017 Milestones Strengths**

- Committed to ensure that permits that are not consistent with the assumptions and requirements of applicable Bay TMDL wasteload allocations are revised as necessary in the next milestone period.

### **Key Areas to Address in 2016-2017 Milestone Period**

- The first three milestones say completed as of December 2015. EPA recommends that Pennsylvania only include milestones where work needs to be completed during the milestone period.
- EPA objected to several draft Chesapeake Bay NPDES permits in 2014-2015. EPA expects Pennsylvania to address the concerns leading to EPA's objections and to reissue these draft permits. If there are outstanding concerns that need to be addressed, Pennsylvania should submit its rationale of why these draft permits cannot be reissued.
- EPA recommends that Pennsylvania develop an inventory of wastewater treatment plants that have been upgraded and those scheduled for upgrades.

### **Offsets and Trading – Maintain Enhanced Oversight**

#### **2014-2015 Milestone Achievements**

- Continued to work with PennVEST to host forward auctions and to register and certify credits.
- Reached an agreement with EPA on modifications to its trading program and made the majority of those changes to resolve EPA permit objections.
- Completed the true-up period for the 2014 and 2015 Water Years on time and completed a summary table of 2014 and 2015 Water Years pollutant reduction activities that generated certified, verified and registered credits.

#### **2014-2015 Milestones Missed**

- The Tracking and Reporting milestones and update comments did not discuss a tracking and accounting system for offsets to be included in a tracking database. It is not clear if this is being developed.

- Did not develop a stormwater offset program and is recommending to stop pursuing a stormwater offset program. A draft document for a stormwater offset program was developed but Pennsylvania has not finalized it and has not included a 2016-2017 milestone on this. Pennsylvania needs to explain how stormwater trading and offsets will be addressed.

#### **2016-2017 Milestones Strengths**

- Committed to develop a nonpoint source credit calculation tool consistent with the Bay TMDL by December 2016.

#### **Key Areas to Address in 2016-2017 Milestone Period**

- EPA expects Pennsylvania to continue to work with EPA by commenting on EPA prepared draft sector growth information and providing any requested additional information regarding sector growth.
- EPA expects Pennsylvania to include a milestone to include a more detailed schedule for the development and promulgation of new trading and offset program regulations.
- EPA expects Pennsylvania to include a milestone to quantify and offset any additional nutrient loads resulting from the increase in poultry layer operations. Between 2007 and 2012, Pennsylvania layer operations increased by 38percent in Pennsylvania counties that share a border with the Chesapeake Bay watershed.

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

- EPA acknowledges Pennsylvania's renewed commitment to the Chesapeake Bay and 2016-2017 milestones that support the "Reboot Strategy". However, Pennsylvania will need to significantly increase its level of effort to reduce nutrients and sediment to meet its 2025 Bay TMDL goals, especially given that the gap continues to grow as a result of growth in various sectors. Therefore, EPA is notifying Pennsylvania that EPA may develop Pennsylvania-specific Phase III WIP expectations to help the Commonwealth get back on track to meeting its 2025 Bay TMDL commitments and goals.
- EPA will be closely monitoring grant workplans for Chesapeake Bay funding to ensure that the Commonwealth targets priority practices in priority places, and other expectations of this evaluation are addressed. EPA may direct funding to the priorities of this evaluation.
- EPA is conducting an additional animal feeding operation (AFO) sub-watershed assessment in 2016 in Pennsylvania in order to ensure the animal operations are in compliance with current regulations.
- EPA will be conducting field assessments of AFOs to determine if these operations should be considered Concentrated Animal Feeding Operations and to evaluate whether farms are implementing required state manure management plans and agriculture E&S plans.
- EPA is offering contractor assistance to build technical assistance capacity for developing Manure Management Plans or Agriculture E&S control plans in priority agricultural watersheds in support of Pennsylvania's Agriculture Compliance Strategy and nutrient and sediment reduction goals.
- EPA is offering contractor assistance to begin local engagement starting in 2016 to meet Pennsylvania's nutrient and sediment reductions.
- EPA may offer assistance to local stakeholders to support local initiatives that assist Pennsylvania in achieving the 2025 targets.