

EPA INTERIM EVALUATION OF MARYLAND'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 Maryland'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. 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 Maryland for the 2016 progress run, Maryland is on track to achieve its statewide 2017 targets for phosphorus and sediment but is off track to achieve its statewide 2017 target for nitrogen.

The data also show that, at the sector scale, Maryland is off track for the Agriculture, Urban/Suburban Stormwater, and Septic sectors to meet its 2017 nitrogen targets. Maryland is on track for all sectors, with the exception of the Urban/Suburban Stormwater sector, to meet its 2017 phosphorus and sediment targets. 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 Watershed Implementation Plan (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 the U.S. Geological Survey (USGS) and the Bay jurisdictions, the monitoring trends throughout Maryland (excluding Conowingo) indicate that for nitrogen, 10 sites show improving (decreasing) load trends over the past 10 years, 2 sites show no significant load trends, and 6 sites indicate nitrogen load trends are degrading (increasing). For phosphorus, 10 sites show improving load trends over the past 10 years, 3 sites show no significant load trends, and 5 sites indicate phosphorus loads trends are degrading. 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 into 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

- Approved seven projects to demonstrate alternative technologies that use and manage animal waste, including manure-to-energy technologies.
- Certified five verifiers for their Agricultural Certainty Program as of December 2016.
- Collected soils phosphorus data on more than one million acres to determine which farms had phosphorus Fertility Index Value levels less than 150, between 150-499, and over 500 to help them implement the Phosphorus Management Tool requirements. Maryland Department of Agriculture (MDA) has collected data for 85 percent of cropland acres so far.
- Published an annual report on nutrient management compliance rates.

Key Areas to Address to meet 2016-2017 Milestones

- EPA expects Maryland to provide a targeted number of increased registrations under its Animal Feeding Operation program within the 2016-2017 milestone period.

Urban/Suburban Stormwater –Downgrade to Enhanced Oversight

2016-2017 Milestone Achievements

- Phase I Municipal Separate Storm Sewer System (MS4) communities have begun to use Maryland's Geographic Information System database for Best Management Practice (BMP) implementation reporting.
- Issued Tentative Determinations for Phase II General Permits for small municipal MS4s, and state and federal entities on December 23, 2016, incorporating EPA's November 2016 Phase II rule regarding permit specificity.
- Conducted extensive Phase II MS4 outreach and guidance for 35 municipalities, and 150 state and federal entities.

Key Areas to Address to meet 2016-2017 Milestones

- Maryland did not issue final determinations for Phase II MS4 permits by March 30, 2017. As a result of these actions not being completed, EPA is downgrading the oversight level for this sector. In addition, EPA expects Maryland to issue final determinations by March 30, 2018.
- Although Maryland reviewed MS4 Restoration Plans for 55 percent of the Phase I MS4 permits, Maryland has not approved any MS4 Restoration Plans. As a result of those actions not being completed, EPA is downgrading the oversight level for this sector. In addition, EPA expects Maryland to approve the Phase I MS4 Restoration Plans submitted during or prior to the 2016-2017 period in order for these plans to become enforceable. If a plan cannot be approved according to Maryland's MS4 Restoration Plan and TMDL Standard Operating Procedures, EPA expects Maryland to take enforcement actions or other appropriate actions as deemed acceptable by EPA.
- EPA expects Maryland to develop a detailed schedule by July 15, 2017 for submitting a draft MS4 permit template for EPA review that articulates the requirements for the Phase I permits set to expire in 2018, as well as the expired Montgomery County MS4 permit.
- EPA expects Maryland to complete final updates its 2014 [Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated](#) guidance document to account for new partnership-approved BMP efficiencies and tracking and reporting requirements once the

CBP partnership's Phase 6 Watershed Model is complete. This is particularly important since this guidance is used by the jurisdictions to calculate reductions in their Phase I MS4 Restoration Plans.

- EPA requests a status update including a specific timeline and next steps associated with finalizing Maryland's Consent Agreement with Montgomery County regarding its MS4 permit compliance.

Wastewater Treatment Plants and Onsite Systems – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Upgraded nine major wastewater treatment plants within this milestone period.
- Upgraded five large minor wastewater treatment plants within this milestone period.
- Maryland's net-based data tracking database for Best Available Technology (BAT) upgrades is being used by all Maryland counties and Maryland Department of the Environment.
- Maryland completed 1,881 BAT installations for septic systems within this milestone period.

Key Areas to Address to meet 2016-2017 Milestones

- EPA expects a status update on completing the septic implementation strategy for those septic systems in the Critical Area, as well as whether an analysis has been conducted to determine a loss in pollutant reductions due to the change in regulations.

Offsets and Trading – Maintain Ongoing Oversight

2016-2017 Milestone Achievements

- Continues to move forward with finalizing its Trading and Offset Guidance Manual, and is currently addressing comments received from EPA and Maryland's Water Quality Trading Advisory Committee (TAC). A proposed regulatory trading framework was discussed at the May 2017 TAC meeting.
- Revised regulations were adopted in August 2016 to establish requirements and standards for the generation and certification of nutrient and sediment credits on agricultural land.
- Continues to document current and future growth in the poultry industry and calculating estimates of nutrients associated with manure that must be offset.

Key Areas to Address to meet 2016-2017 Milestones

- EPA recommends that Maryland continue developing a policy on accounting for growth.
- EPA recommends that Maryland consider including language in its MS4 permits that would factor the use of trading into the Maximum Extent Practicable determination and enable progress to be made toward Bay TMDL targets.

Potential Federal Actions and Assistance

EPA is downgrading Maryland Urban/Suburban Stormwater to enhanced oversight since Maryland did not make substantial improvements on the following issues:

- Did not issue tentative determinations for the Phase II MS4 permits (i.e., draft permits) by September 30, 2016 and did not issue final determinations (i.e., final permits) by March 30, 2017;
- Did not approve any Phase I MS4 Restoration Plans submitted during the 2016-2017 period, thereby making these plans unenforceable; and
- Continues to be significantly off track in this sector for all three pollutants.

EPA may upgrade Maryland Urban/Suburban Stormwater to ongoing oversight if Maryland takes all of the following actions:

- Issues final determinations for the Phase II MS4 permits by March 30, 2018;
- Approves Phase I MS4 Restoration Plans submitted during or prior to the 2016-2017 period according to Maryland's MS4 Restoration Plan and TMDL Standard Operating Procedures, takes appropriate enforcement actions, or takes other appropriate actions, as deemed acceptable by EPA, in the event a plan cannot be approved;
- Addresses EPA's concerns with Maryland's assessment and approval of the Phase I MS4 financial assurance plans, beginning with the 2018 review process (a letter outlining these concerns was sent on April 24, 2017); and
- Develops a long-term strategy for how Maryland will achieve its nutrient and sediment reduction targets in the Urban/Suburban Stormwater sector through its National Pollutant Discharge Elimination System permitting program, including timely permit reissuance, a Compliance and Enforcement Strategy for the Restoration Plans, and review of future Financial Assistance Plans.

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 Maryland to include commitments in its 2018-2019 milestones for the timely reissuance of all Phase I MS4 permits set to expire during that time period. In addition, specific language on trading should be included in these permits if MS4s will be allowed to use trading to fulfill its restoration requirements.
- EPA expects Maryland to review MS4 compliance with the 20 percent restoration requirement outlined in the Phase II WIP and determine whether this course is still appropriate for the Phase III WIP or if additional strategies are necessary to achieve reductions in the Urban/Suburban Stormwater sector.
- EPA expects Maryland to continue to work with EPA to understand where growth is occurring, and where loads need to be offset, to offset these new loads within the appropriate timeframe, and to continue to track and account for new or increased loads. In particular, EPA has observed data showing increases in poultry manure and poultry house construction activities, and increases in nitrogen in the Urban/Suburban Stormwater sector.
- EPA requests that Maryland continue its strong involvement in the Federal Facilities Workgroup (FFW) and contribute to continuing the progress made in reporting BMP data

received from federal agencies. The FFW will also rely on Maryland's input to ensure federal facility targets, the use of the Phase 6 watershed model, and federal facility-content in the Phase III WIP are fully supportive of Maryland'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 lands.