

Backgrounder

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2009-2011 Milestones, Interim Progress

Prior to 2009, the Chesapeake Bay Program (CBP) had set one overall goal for cleaning up the Bay a decade or more in the future. But this long-term approach made it difficult to evaluate progress along the way and adjust partners' actions in ways that would best support improvements in our waterways.

Therefore, at their spring 2009 meeting, the Chesapeake Executive Council of the CBP announced that it would begin using short-term goals to increase restoration work and improve accountability. Every two years, the states and D.C. would meet milestones for putting measures in place to reduce pollution and protect the environment, with the first milestone period ending in December 2011. The goal under this new approach was for the program partners to put all projects and programs in place that are needed for the Chesapeake Bay to recover no later than 2025. It required many states to intensify the pace of cleanup, often doubling the previous rate of progress. If a milestone was missed, the partners committed to follow their back-up plans called "contingencies", which included a variety of additional options for reducing pollution.

At the 2010 Executive Council meeting, attending members called for an "interim assessment" of progress on the milestones established the previous year. That assessment, which evaluates the period from July 2008 (the baseline) through June 2010, is being presented at the 2011 Chesapeake Executive Council at their July 11 meeting.

It is important to realize that the 2009 milestones and the interim assessment offered at the 2011 meeting reports on the status of pollution reduction *actions taken* by the jurisdictions, rather than reporting on the *amounts of pollution reduced, called "loads"*. Milestones under the Chesapeake Bay TMDL – the "pollution diet" for the Bay, issued in December of 2010 – will be in two-year intervals, with the first period being January 2012-December 2013. These TMDL-related, 2-year milestones will track the reduction in *loads* of nitrogen, phosphorus and sediment.

Attached is the overall "2011 Milestones for Reducing Nitrogen and Phosphorus" fact sheet, published in 2009, that reflects the pollution reducing commitments made by the seven jurisdictions at the Executive Council meeting that year. The <u>full set of Fact Sheets that reflect each specific jurisdiction's 2009 commitments</u> (PDF, 18pp) are available online.

The Chesapeake Bay Program is a regional partnership that has coordinated and conducted the restoration of the Chesapeake Bay since 1983. Partners include the U.S. Environmental Protection Agency; the U.S. Department of Agriculture; the states of Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia; the District of Columbia; the Chesapeake Bay Commission, a tri-state legislative body; and advisory groups of citizens, scientists and local government officials.



2011 Milestones for Reducing Nitrogen and Phosphorus



Introduction to Milestones

In the past, the Chesapeake Bay Program has set one overall pollution reduction goal for cleaning up the Bay a decade or more in the future. But this approach was like a ladder without rungs – it did not include the incremental, short-term goals needed for steady progress in reducing pollution.

Now the partnership will use short-term goals to increase restoration work, called milestones. Every two years, the six states and D.C. will meet milestones for implementing measures to reduce pollution from nitrogen and phosphorus, with the first milestone on December 31, 2011.

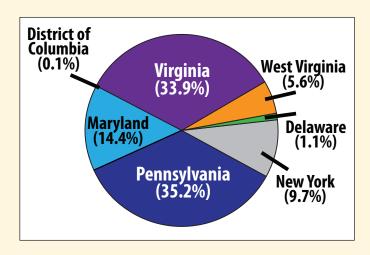
By meeting the 2011 milestones, an additional 6.9 million pounds of nitrogen will be reduced in the watershed, which is a 77 percent increase over the previous rate of progress. For phosphorus, an additional 463,948 pounds will be reduced watershed-wide, which is a 79 increase over the previous rate of progress.

Milestone Fact Sheets

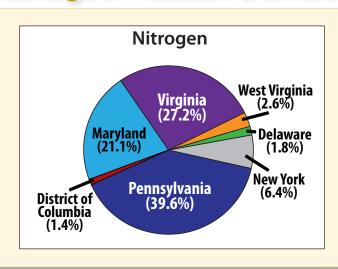
These fact sheets present 2011 milestones for all jurisdictions and contain common elements:

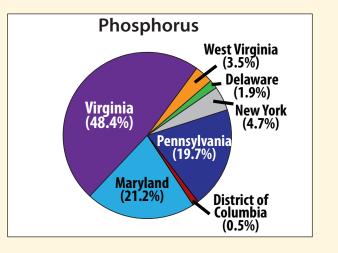
- **Reduction Milestone:** These tables show the amount of pollution the jurisdiction will reduce.
 - Maryland, Pennsylvania and Virginia: The table shows what the state would have reduced at its previous rate of progress and the amount of pollution that will be reduced by meeting the 2011 milestone. Comparing these numbers shows the increase in the pace of cleanup.
 - Delaware, New York and West Virginia: The limited implementation data record in the Phase 4.3 Watershed Model prevents the same jurisdiction-specific comparisons between previous rates of progress and milestone rates of progress for Delaware, New York and West Virginia.
 - *District of Columbia:* The District has met its phosphorus reduction goal and will meet its nitrogen goal when the Blue Plains facility upgrades treatment in 2015.
- **Pollution Reductions by Source:** These charts show from what sources the jurisdiction will achieve the reductions.
- **Funding During Milestone Period:** This box displays the projected funding that will be used to implement pollution reduction measures through 2011.
- **Pollution Reduction Actions by End of 2011:** These are the actions the jurisdiction will take to reduce pollution to meet its milestones.
- Additional Reduction Options: These are options for reducing pollution that a jurisdiction could pursue if necessary to meet its milestones.

Percentage of Total Watershed Acreage

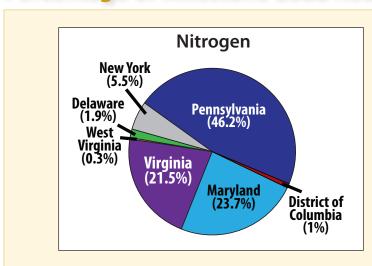


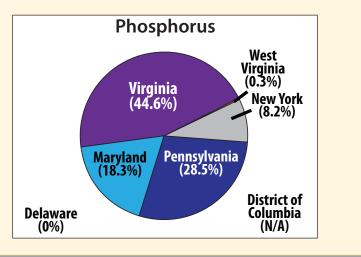
Percentage of Pollution Delivered by Each Jurisdiction





Percentage of Milestone Load Reductions from Each Jurisdiction







Watershed-Wide

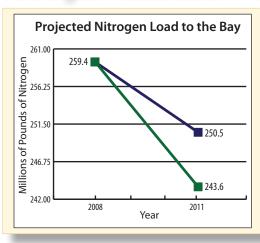
Total of 2011 Milestones to Reduce Nitrogen and Phosphorus



Projected*

79%

Nitrogen Reduction Milestones



By meeting the 2011 milestones, the amount of nitrogen entering the Bay will decrease by 15.8 million pounds, which is 6.9 million pounds more than at the previous rate of progress -- a 77 percent increase.

Projected*

Reduction at Previous Rate of Progress 8.9M

Pollution Load after Previous Rate of Progress 250.5M

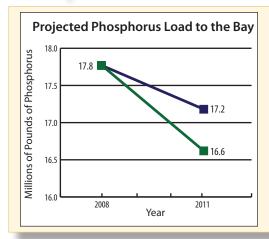
Reduction at Milestone Rate of Progress 15.8M

Pollution Load after Milestone Rate of Progress 243.6M

Increase in Rate of Progress 77%

M = Millions of Pounds of Nitrogen

Phosphorus Reduction Milestones



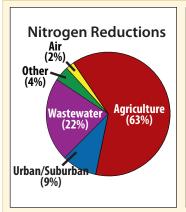
For phosphorus, the amount entering the Bay will decrease by 1.05 million pounds, which is 463,948 pounds more than at the previous rate of progress — a 79 increase.

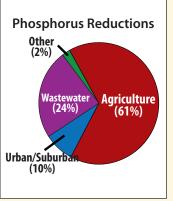
| | riojected |
|---|-------------|
| Reduction at Previous Rate of Progress | 586,681 lbs |
| Pollution Load after Previous Rate of Progress | 17.2M |
| Reduction at Milestone Rate of Progress | 1.1M |
| Pollution Load after Milestone Rate of Progress | 16.6M |

M = Millions of Pounds of Phosphorus

Increase in Rate of Progress

Pollution Reductions by Source





Funding During Milestone Period

| Delaware | \$17M |
|----------------------|-----------------|
| District of Columbia | \$266M |
| Maryland | \$774M |
| New York | \$15.2M |
| Pennsylvania | \$67.5M |
| Virginia | \$1,195.2M |
| West Virginia | \$22M |
| TOTAL | \$2,356,900,000 |

^{*} Nitrogen and phosphorus reductions are based on Phase 4.3 Watershed Model data for agricultural, urban/suburban and air reductions and monitored data for wastewater reductions.

Pollution Reduction Actions by End of 2011

Agriculture

Nutrient Management 1,082,251 acres Conservation Tillage 306,991 acres **Cover Crops** 652,152 acres/year Pasture Grazing BMPs 168,800 acres Streamside Forest Buffers 39,110 acres Streamside Grass Buffers 14,910 acres **Forest Harvesting Practices** 125 acres Wetland Restoration 3,809 acres **Land Retirement** 81,676 acres Tree Planting 27,965 acres

Carbon Sequestration/Alternative Crops 25,740 acres Conservation Plans/SCWQP 584,648 acre

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Animal Waste Management Systems 1,016 systems
Mortality Composters 22 systems
Water Control Structures 25,000 acres

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Horse Pasture Management 300 acres
Non-Urban Stream Restoration 232,088 feet

Poultry Phytase 19,626 fewer pounds phosphorus Manure Transport 131,503 net tons

Dairy Precision Feeding and/or Forage Management 291,203 pounds N/51,264 pounds P

Heavy Use Poultry Area Concrete Pads
Livestock and Poultry Waste Structures
Dairy and Poultry Manure Incorporation Technology
5,000 acres

Wastewater

1,887,350 pounds nitrogen reduced 201,500 pounds phosphorus reduced

Urban/Suburban

Urban Stormwater Management 148,740 acres Tree Planting 30 acres **Urban Stream Restoration** 18,656 feet **Erosion and Sediment Control** 62,731 acres 133,000 acres **Nutrient Management Wetland Restoration** 350 acres **Abandoned Mine Reclamation** 2,219 acres Dirt and Gravel Road Erosion 124,913 feet Septic Improvements 27,125 systems

<u>Air</u>

Heavy Truck Anti-Idling Rule 9.78M hours reduced NOx Reductions 56,000 tons

Maryland Healthy Air Act 305,882 fewer pounds nitrogen/year