



**CHESAPEAKE BAY
FOUNDATION**
Saving a National Treasure

Pennsylvania



2011 MILESTONE PROGRESS








choose
clean water

AT A GLANCE



Agriculture

-  No-Till
-  Nutrient Management
-  Forest Buffers
-  Cover Crops
-  Conservation Plans





Urban/Suburban

-  Stream Restoration
-  Septic Connections
-  Stormwater Management



Wastewater

-  Nitrogen Reduction
-  Phosphorus Reduction

For more detailed information on the progress Pennsylvania has made in these areas, see the chart on the back of this sheet.

Pennsylvania's Plan for Clean Water: Are They Making Progress?

The Chesapeake Bay and thousands of Pennsylvania streams that feed into it are polluted—evidenced by algal blooms, oxygen-deprived dead zones, and water that is too often unsafe for swimming. To clean up our waters, we must reduce the nitrogen, phosphorus, and sediment pollution that causes these problems. Pollution sources include animal waste and farm fields; runoff from urban and suburban development; wastewater treatment plants and septic systems; and air pollution from cars, trucks, and power plants.

The history of Chesapeake Bay restoration is full of long-term goals set—then missed. Most recently, in 2000, the Chesapeake Executive Council promised to restore the Bay's health by 2010, but in 2008 the Chesapeake Bay Program acknowledged it would fail by a wide margin. This failure triggered two actions. First, the Executive Council charted a new course for the Chesapeake Bay's recovery by committing to short, two-year goals, or "milestones," to reduce pollution to local rivers, streams, and the Bay. Second, science-based pollution-reduction targets and the state plans (Clean Water Blueprints) to achieve them were completed in December 2010.

Setting the Milestones

In May 2009, the Executive Council released their first milestones, a set of measures to be implemented by 2011 that would accelerate the pace of restoration and put the states on a trajectory to achieve full implementation by 2025. Ensuring that the states and the U.S. Environmental Protection Agency not only set effective milestone goals, but actually achieve and enforce them, is critical to the success of the Clean Water Blueprints.

As such, the Chesapeake Bay Foundation and the Choose Clean Water Coalition are collaborating to evaluate and publicize milestone progress. The intent: to ensure that the deadlines for Bay cleanup are met, in part, by holding the states accountable for achieving their milestone commitments. This analysis of Pennsylvania's 2011 milestone progress is the first outcome of this collaboration.













Milestone Progress

We selected a subset of implemented practices within three pollution source categories—agricultural runoff, urban/suburban sources, and wastewater treatment—based on their potential to provide substantial nitrogen and phosphorus pollution reductions and offer important lessons for implementation moving forward. The table (see reverse) lists the selected practices along with their 2011 milestone goals, the percentage of the goal that was achieved, the percentage of the 2025 goal met, and lessons learned. Data were provided by the U.S. Environmental Protection Agency's Chesapeake Bay Program Office.

Transparency and Accountability

Greater transparency and accountability by the U.S. Environmental Protection Agency and the state agencies are required to ensure quality data and continued progress toward the milestones. Areas of concern include data sources, units of measurement, baseline estimates, and milestone commitments. In certain instances, we identified the need for greater accountability in the quality of both milestone and historic implementation data.

Assessment of Pennsylvania's Progress on Selected Pollution-Reduction Targets for the 2011 Milestone

 AGRICULTURE	2011 MILESTONE GOAL	MILESTONE PROGRESS	PROGRESS TO 2025 GOAL	LESSONS LEARNED
Continuous No-Till <i>acres</i>	86,567	-23% 	not able to assess	Uncertainties with the data imply the need to field verify this practice as anecdotal information suggests higher rates of implementation. Need to improve the tracking system for this practice.
Nutrient Management <i>acres</i>	129,250	59% 	7%	As a regulatory requirement for Pennsylvania farms using manure fertilizer, non-achievement of this milestone is particularly concerning.
Forest Buffers <i>acres</i>	19,059	207% 	34%	Despite strong reported progress, uncertainties with the data imply the need to field verify this practice as the milestone rate of implementation appears significantly higher than in previous reporting periods.
Total Cover Crops <i>acres/year</i>	174,818	37% 	10%	Uncertainties with the data imply the need to field verify this practice as anecdotal information suggests higher rates of implementation. Need to improve the tracking system for this practice. Efforts underway to account for the implementation of "non-cost share" practices may help.
Conservation Plans <i>acres</i>	327,599	46% 	10%	As a regulatory requirement for Pennsylvania farms, non-achievement of this milestone is particularly concerning.
 URBAN/ SUBURBAN	2011 MILESTONE GOAL	MILESTONE PROGRESS	PROGRESS TO 2025 GOAL	LESSONS LEARNED
Urban Stream Restoration <i>feet</i>	4,400	86% 	7%	Uncertainties with the data and the type of restoration techniques suggest we need better verification of the implementation of this practice.
Septic Connections <i>systems</i>	7,353	105% 	8%	Crediting of connections to treatment plants incentivizes this practice.
Stormwater Management <i>acres</i>	8,690	1% 	not able to assess	Uncertainties and discrepancies with the data limited analysis and suggest the need for better consistency, accounting, and tracking. Lack of funding and clear requirements limit implementation.
 WASTEWATER	2011 MILESTONE GOAL	MILESTONE PROGRESS	PROGRESS TO 2025 GOAL	LESSONS LEARNED
Nitrogen Reduced <i>pounds</i>	1,679,000	100%  plus traded lbs.	48%	Treatment upgrades and nutrient trading contributed to the progress of this practice.
Phosphorus Reduced <i>pounds</i>	49,500	255% 	100%	Treatment upgrades contributed to the progress of this practice.

Source: EPA Chesapeake Bay Program Office

 Goal met or exceeded  Goal not met

Conclusion

Overall, Pennsylvania achieved four out of the 10 practices evaluated. While achievements in urban stream restoration, forest buffers, and wastewater are notable, Pennsylvania must redouble its efforts in continuous no-till, conservation plans, nutrient management, and urban stormwater management practices to stay on track to achieve 60 percent implementation by 2017 and full implementation by 2025. In addition, the transparency of the data used to determine progress is of concern.

We thank the Virginia Environmental Endowment and Keith Campbell Foundation for providing funding for this work.



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