

Chesapeake Bay Program

DEP's Chesapeake Bay Program Office is tasked with coordination of activities to implement the Chesapeake Bay TMDL to restore water quality. Working with several partners and stakeholders, the program office has developed a Bay restoration strategy comprised of several short, mid and long-term recommendations, aimed at augmenting the approach to water quality improvements in the Chesapeake Bay watershed. This strategy is a collaborative effort between DEP, Department of Agriculture, and Department of Conservation and Natural Resources, along with other stakeholders in the design, development and implementation of restoration strategies.

There are six essential recommendations laid out in this strategy:

- Put high-impact, low-cost Best Management Practices (BMPs) on the ground, and quantify undocumented BMPs in watersheds impaired by agriculture or stormwater.
- Improve reporting, record keeping, and data systems to provide better and more accessible documentation.
- Address nutrient reduction by meeting EPA's goal of inspecting 10 percent of farms in the watershed, ensuring development and use of manure management and agricultural erosion and sediment control plans, and enforcement for non-compliance.
- Identify legislative, programmatic or regulatory changes to provide the additional tools and resources necessary to meet federal pollution reduction goals by 2025.
- Obtain additional resources for water quality improvement.
- Establish a Chesapeake Bay Office to coordinate the development, implementation and funding of the commonwealth's Chesapeake Bay efforts.

The strategy relies on a mix of technical and financial assistance for farmers, technology, expanded data gathering, improved program coordination and capacity, and – only when necessary – stronger enforcement and compliance measures.

In 2010, EPA established the [Chesapeake Bay Total Maximum Daily Load \(TMDL\)](#) to restore clean water in the Chesapeake Bay. The TMDL requires Pennsylvania to make specific reductions in nitrogen, phosphorous, and sediment and reach those goals by 2025. Pennsylvania is also required to develop a series of three “Watershed Implementation Plans” (WIPs). These plans specify how Pennsylvania will accomplish these pollution reduction goals. Pennsylvania developed its [Phase 1 WIP](#) in 2010 and its [Phase 2 WIP](#) in 2012. DEP is currently working on the [Phase 3 WIP](#). For more detailed information on EPA's TMDL, click [here](#).

Pennsylvania's Chesapeake Bay Office was established within DEP in early 2016 to assure the proper development, implementation and coordination of the Commonwealth's efforts for restoration of the Chesapeake Bay and administering DEP's Chesapeake Bay Program grant.

Phase 3 WIP Efforts

Over the next 7 years, critical thinking, strategic planning, and partnerships are key in this final phase. EPA recognizes there is no one-size-fits-all approach and has provided jurisdictions with the flexibility to determine how to initiate a local approach to developing the Phase 3 WIP ([click for more information](#)).

Since April 2017, a large stakeholder initiative that has included government agencies, state legislators, county and local government officials, industry associations, NGOs, and citizens has been working on how to best approach a collaborative effort to develop county-based Action Plans for clean water that are realistic and implementable to local communities.

In an effort to more fully account for all local water quality activities, benefits, improvements, and planned activities, EPA and its state partners added a new component to the Phase 3 WIP process - a local, bottom-up approach. This new approach, focusing on local partnerships, is a critical component of a successful Phase 3 WIP. The key goal in this process is to engage partners at the county and local level, and give those partners direct input into the planning and implementation of the practices that achieve local water quality improvements that work best for their local priorities. Pennsylvania's nitrogen and phosphorus reduction targets are broken down into local planning goals for each countywide area. Added together (reductions from all 43 counties), these local pollution reductions will help Pennsylvania reach its Chesapeake Bay clean water targets.

Pennsylvania is making progress toward its clean water goals:

- Twenty-five years before the TMDL, in 1985, the Susquehanna River delivered nearly 125 million pounds of nitrogen and just over six million pounds of phosphorus to the Bay – annually!
- By 2017, seven years into the TMDL commitment, Pennsylvania's efforts have resulted in the annual reduction of over 16 million pounds of nitrogen and nearly 2.5 million pounds (nearly half) of phosphorus.

Table 1 below summarizes the nitrogen and phosphorus reduction progress and 2025 requirements.

Table 1. Pennsylvania's Nitrogen and Phosphorus Reductions

Year	Nitrogen (M lbs/year)		Phosphorus (M lbs/year)	
	Delivered to the Bay	Delivered to Local PA Waterways	Delivered to the Bay	Delivered to Local PA Waterways
1985(Actual)	122.02	183.88	6.046	14.857
2017 (Actual)	107.31	161.94	3.801	9.640
2025 (Final TMDL Planning Target)	73.18	110.88	3.044	7.619
Remaining Reductions to be Achieved Through Local Planning Goals *	34.31	51.06	0.757	2.021

*This table does not account for future (beyond 2025) pollution loads and potential impacts such as climate change, development and growth, and potential infrastructure or (cost of doing business) which may alter the amount of sediment reaching the Bay (currently held in place by the Conowingo Dam).

Table 2. Federal funds used towards restoring clean water to the Chesapeake Bay

Funding Source or Agency Receiving Funding	FY2016	*FY2017
Chesapeake Bay Implementation Grant (DEP)	\$1,118,370	\$1,039,360
Chesapeake Bay Regulatory and Accountability Grant (DEP)	\$3,431,066	\$2,915,054
Chesapeake Bay Program Non-Tidal Monitoring Network (DEP)	\$264,475	\$356,083
Other DEP Federal Funding	\$6,287,188	\$7,680,720
PA Department of Natural Resources	\$190,424	\$190,424
Pennsylvania Infrastructure Investment Authority	\$32,269,383	\$24,798,503

*FY17 costs are from October 1, 2016 through June 30, 2017

Table 3. State funds used towards restoring clean water to the Chesapeake Bay

Funding Source or Agency Receiving Funding	FY2016	*FY2017
Chesapeake Bay Implementation Grant (DEP)	\$1,039,447	\$956,145
Chesapeake Bay Regulatory and Accountability Grant (DEP)	\$1,439,523	\$918,466
Chesapeake Bay Program Non-Tidal Monitoring Network (DEP)	\$3,950	--
Chesapeake Bay Commission (DEP)	\$227,000	\$275,000
Other PADEP State Funding	\$13,836,239	\$17,271,047
State Conservation Commission	\$23,652,000	\$23,684,000
Pennsylvania Infrastructure Investment Authority**	\$7,026,241	\$43,393,256
PA Department of Natural Resources	\$3,855,338	\$2,121,661

*FY17 costs are from October 1, 2016 through June 30, 2017

** Amounts are based on projects approved, not funds spent. Projections can't be made since we can't determine type, number of projects or amounts we will receive.