



**Underfunded and Polluted:  
Solutions to Fund Clean Water  
in Pennsylvania and the  
Chesapeake Bay Watershed**



## EXECUTIVE SUMMARY

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*A rain garden and pavilion overlook the Susquehanna River at the Zimmerman Center for Heritage in Wrightsville, PA.*

Photo courtesy of Will Parson, Chesapeake Bay Program

Pennsylvania's role in Chesapeake Bay restoration efforts began in earnest 38 years ago when Governor Dick Thornburgh participated as a signatory to the first multistate Chesapeake Bay Agreement. While some progress has been made since that agreement in 1983, many obstacles still remain. Most persistent is the need for more state funding to achieve \$521 million in annual projects to cut water pollution in Pennsylvania's portion of the Chesapeake Bay Watershed—a goal state policymakers chronically miss by at least \$325 million a year, and oftentimes more.

There are more than 15,000 miles of polluted streams within Pennsylvania's portion of the watershed, which include the Susquehanna and Potomac River Basins. Both are choked with excess nutrient and sediment pollution, and they will not be restored without needed attention and resources from our state elected officials.

Now is the time to act. To date, Pennsylvania has significantly lagged in meeting milestones established in the Chesapeake Bay Total Maximum Daily Load (TMDL) by 2025—the Bay's so-called "pollution diet" set by the Environmental Protection Agency (EPA).

The benefits include significantly improving water quality and the ecology of the Bay and local waterways, but it also goes beyond the environment. Improving the health and vitality of our rivers and streams can bring new revenues to local economies through construction and maintenance activities, while also addressing flooding, infrastructure and safety concerns. The same practices that improve water quality can also positively impact farm productivity and viability. Clean water in our rivers and streams promotes a vibrant recreation and tourism industry in Pennsylvania as well.

Pennsylvania has a plan in place that identifies practices, policies, programs, and staffing needs to clean up our rivers and streams. The stakeholder-driven Phase 3 Watershed Implementation Plan (WIP) was finalized in August 2019. By the end of 2021, all 43 counties in the watershed will have a unique County Action Plan (CAP), developed by stakeholders in each county that identifies the local problems, solutions, and resource needs to meet county-level targets.

This report describes the pollution problems Pennsylvania faces in the Susquehanna and Potomac River basins and explores the history of restoration efforts. Looking forward, the report puts forth a legislative agenda that achieves the \$521 million funding need as well as meets the Commonwealth's Chesapeake Bay TMDL goals.

The policy recommendations made in this report fall under six categories:

## 1. Funding for State Agency and Technical Assistance Staffing

Clean water goals will not be met without adequate agency staff in place to manage the programs and sufficient technical assistance needed to guide project planning and implementation. To that end, funding in the state's annual budget must match the staffing needs for agencies and technical assistance.

- The Phase 3 WIP estimates the number of full time equivalent (FTE) staff at state agencies needs to increase from 88 to 188 employees. This includes staff at the Department of Environmental Protection (DEP), the Department of Conservation and Natural Resources (DCNR), the State Conservation Commission (SCC), and the Fish and Boat Commission (PFBC).
- The number of staff at County Conservation Districts (CCDs) needs to increase by 75 percent from 186 to 340 FTE to ensure there are enough boots on the ground to get the work done.

## 2. Policies to Reduce Nutrient Pollution from the Agriculture Sector

Runoff from agricultural lands plays a critical role in the health of our waterways. The agriculture sector represents nearly 75 percent of all watershed-wide reductions Pennsylvania needs to make in order to meet our goals. Agriculture is also the leading cause of local water quality problems in Pennsylvania. Providing assistance to farmers will benefit their operations and help clean up our rivers and streams. We recommend the following policies to reduce nutrients coming off agricultural lands:

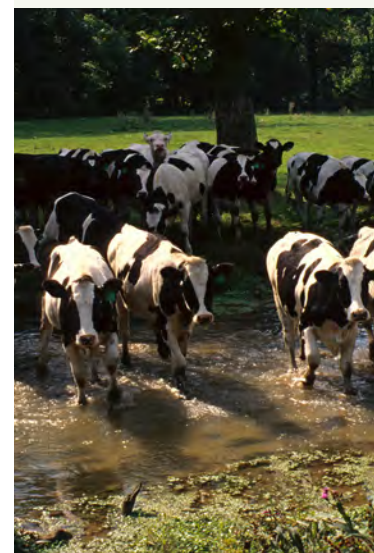
- Establish a Pennsylvania Agricultural Cost-Share Program
- Expand Pennsylvania's Reserve Enhancement and Protection (REAP) Tax Credit Program
- Update Pennsylvania's "Clean & Green" Program
- Provide Municipalities the Authority to Enact Streambank Fencing Requirements

## 3. Policies to Reduce Pollution from Stormwater Runoff

Municipalities play an important role in cleaning up Pennsylvania's third-leading source of water pollution: stormwater runoff from developed surfaces. The following set of policies will help provide assistance to local governments and improve local rivers, streams, and infrastructure:

- Develop a Municipal Stormwater Assistance Program
- Develop a Green Stormwater Infrastructure Grant Program
- Increase Funding to the Dirt, Gravel, and Low Volume Road (DGLVR) Program
- Restore Funding for Act 167 Stormwater Management Planning
- Establish Requirements for Fertilizer Application
- Provide Municipalities the Authority to Enact Stormwater Fees

**AGRICULTURE IS  
ALSO THE LEADING  
CAUSE OF LOCAL  
WATER QUALITY  
PROBLEMS IN  
PENNSYLVANIA.**



*Cows crossing a stream on a farm.*

Photo courtesy of Chesapeake Bay Program



*Forest restoration in Bedford County, PA.*

Photo courtesy of Chesapeake Bay Program

#### 4. Policies to Reduce Nutrient Pollution from Forestry-related Practices

Forestry-related practices are some of the most cost-effective means of cleaning up our waterways, including planting streamside forests and increasing the number of trees in our cities and towns. The following policies will accelerate the installation of these critical practices:

- Expand Funding to DCNR's Riparian Forest Grant Program
- Continue and Expand Pennsylvania Infrastructure Investment Authority (PENNVEST) Multifunctional Buffer Grant Program
- Fund TreeVitalize to meet Tree Canopy Goals
- Provide Dedicated Funding for Clean Water Projects
- Establish a minimum 100-foot Riparian Buffer Requirement

#### 5. Funding Pilot County Practices

The Phase 3 WIP includes county-level planning and stakeholder engagement in each of the 43 counties that make up Pennsylvania's portion of the Chesapeake Bay Watershed. During the Phase 3 WIP development, the first four County Action Plans (CAP) were established for Lancaster, York, Franklin, and Adams counties. The state should establish a dedicated and reliable fund that would provide adequate funding for the practices identified in county-level plans.

- Establish a County Action Plan Implementation Fund

#### 6. Funding the Remaining Reductions in the Wastewater Sector

Due to significant investments to upgrade wastewater treatment facilities, wastewater treatment plants have largely met the goals assigned to this sector. However, the Phase 3 WIP identifies additional nutrient reductions through the establishment of an online reporting system in which municipalities can report their efforts to implement onsite septic system inspection and pumping programs, as required by the Act 537 Sewage Facilities Planning Act.

- Include funding in DEP's budget to complete online reporting system

**Tables 1 and 2** summarize the policy recommendations provided in this report that would put Pennsylvania on track to meet clean water goals. Table 1 shows the funding needed in the annual state budget to meet the Phase 3 WIP estimated costs. While Table 2 lists additional policies that could help to reduce the amount needed in the annual budget.

We know the path forward. Now it is incumbent upon the General Assembly to invest in our communities and provide the funding needed to clean up our rivers and streams. It's estimated that the economic benefits provided by clean water improvements, such as increases in real estate and recreational opportunities, will increase by \$6.2 billion annually compared to an annual investment of \$521 million.

Staffing and Technical Assistance	
Annual Agency Appropriations for Staffing	\$52 million
<b>Total</b>	<b>\$52 million</b>
Agriculture	
Agricultural Cost-Share Program	\$100 million
Reserve Enhancement and Protection (REAP) Tax Credit Program	\$56 million
Clean & Green Program	\$50 million
<b>Total</b>	<b>\$206 million</b>
Stormwater	
Municipal Stormwater Assistance Fund	\$16 million <sup>1</sup>
Green Stormwater Infrastructure Grant Program	\$25 million
Dirt, Gravel, and Low Volume Road Program	\$5 million <sup>2</sup>
<b>Total</b>	<b>\$62 million</b>
Forestry-related Practices	
DCNR Riparian Forest Buffer Grant Program	\$2.5 million <sup>3</sup>
PENNVEST Multifunctional Buffer Grant Program	\$5 million
DCNR TreeVitalize	\$4,000
Growing Greener and Keystone Fund	\$33 million <sup>4</sup>
<b>Total</b>	<b>\$43 million</b>
Pilot County Practices	
County Action Plan Implementation Fund	\$157 million <sup>5</sup>
<b>Total</b>	<b>\$157 million</b>
Wastewater	
Onsite Septic Management monitoring and reporting program	\$309,000 <sup>6</sup>
<b>Total</b>	<b>\$309,000</b>
<b>TOTAL</b>	<b>\$521 million</b>

**Table 1.** Summary of policy recommendations to fund improvements to Pennsylvania’s waters and meet the Phase 3 WIP goals.

Sector	Policy
Agriculture	Update Clean & Green Program
Agriculture	Municipal Authority to Enact Streambank Fencing Requirements
Stormwater	Act 167 funding
Stormwater	Pass fertilizer limits
Stormwater	Municipal authority to enact stormwater fees
Forestry-related practices	Establish a minimum 100-foot Riparian Buffer Requirement

**Table 2.** Summary of policy recommendations that would reduce annual appropriations needed in the state budget.