

CHESAPEAKE BAY PROGRESS REPORT PENNSYLVANIA

Agricultural Lands in Pennsylvania Key to Healthy Bay

The saying, “everything flows downstream,” is especially important in a place like Pennsylvania, where the land management decisions of farmers and forest landowners are helping send cleaner water downstream to the Chesapeake Bay. Weaving through the middle of the state, the Susquehanna River sends 25 million gallons of water each day into the bay.

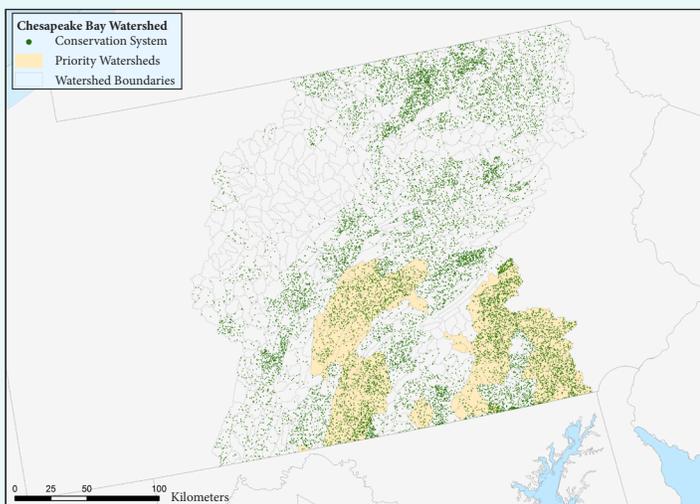
Farmers and forest landowners are using conservation systems that are reducing nutrient and sediment runoff by keeping soil in place and making agricultural lands more efficient and productive.



NRCS works closely with farmers along the Susquehanna River and other watersheds in Pennsylvania to adopt conservation systems that help improve water quality.

Targeted Approach in Pennsylvania

USDA’s Natural Resources Conservation Service (NRCS) has developed a systems approach for designing and installing conservation activities on farms and forests to



Each dot represents a conservation system. Dots are randomly placed within watersheds to protect landowner privacy.

protect and improve water quality. The core parts of this approach are conservation activities that avoid, control and trap potential nutrient and sediment losses from fields.

Most of the conservation work in Pennsylvania focuses on controlling nutrients on livestock operations and on croplands where farmers use manure as fertilizer. NRCS targets investments in high-priority watersheds where nutrient and sediment pollution is highest. Since 2009, NRCS and conservation partners have worked with Pennsylvania farmers and forest landowners to install conservation systems on more than 1 million acres in the basin. This investment includes hundreds of nutrient management plans and the implementation of a variety of practices, such as residue and tillage management, cover crops and nutrient management.

Through the National Water Quality Initiative, NRCS targeted efforts in several core watersheds, including the Upper Kishacoquillas. Since 2012, NRCS has provided nearly \$1.7 million to help Pennsylvania producers implement 61 conservation and management practices through a systems approach to control and trap nutrient and manure runoff.

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Through the CIG program and RCPP, NRCS works with partners to innovate and expand conservation efforts.

INVESTMENTS IN PENNSYLVANIA

YEAR	INVESTMENT	ACRES
2009	\$29.1 million	124,000
2010	\$42.2 million	203,000
2011	\$46.4 million	153,000
2012	\$47.1 million	148,000
2013	\$40.9 million	157,000
2014	\$30.2 million	127,000
2015	\$31.3 million	113,000
TOTAL	\$267.2 million	1,025,000

Source: NRCS Resources Economics, Analysis and Policy Division.

Leveraging the Help of Partners

NRCS investments are often matched two- and three-fold by conservation partners in Pennsylvania. Through the Conservation Innovation Grants (CIG) program and Regional Conservation Partnership Program (RCPP), NRCS is building the next generation of conservation science and innovation and bringing together partners at the grassroots level to address natural resource challenges.

Through CIG, NRCS has invested more than \$3.45 million since 2009 in innovation efforts of universities, conservation districts, companies and other groups in Pennsylvania. These grants are improving conservation approaches, such as optimal cover crop mixes and best ways to reduce tillage.

Positive Outcomes in Pennsylvania

Independent reports show positive trends for water quality, habitat and key aquatic species, and modeled results and monitoring stations show declines in nutrient and sediment loads to the Bay. For example, the USGS estimates that the Susquehanna River delivered 66.2 million pounds of nitrogen to the Bay from January to May 2016, which is 17 percent below average conditions.

Additionally, NRCS is working with state and federal partners in Pennsylvania on a remote sensing pilot project to better monitor the use of best management practices (BMPs) installed without financial assistance from state

The grants are also enabling partners to engage different groups, such as first-time forest landowners and other non-traditional farmers.

Through RCPP, NRCS is bringing conservation partners together across the state and basin, investing \$14 million to get conservation practices on the ground. USDA designated the Chesapeake Bay as one of the eight critical conservation areas for RCPP funding. Right now, three projects are ongoing in the basin, bringing together an array of partners like American Bird Conservancy, Alliance for the Chesapeake Bay, National Fish and Wildlife Foundation, Bradford County Conservation District, Stroud Water Research Center, and Chesapeake Bay Foundation.



and federal agencies. Twenty-eight BMPs were identified as significantly benefiting natural resources in the basin, and remote sensing found use of 15,000 practices in the Potomac River watershed in Pennsylvania.