



Pennsylvania's Conservation Districts: Working with the Agricultural Community to Reduce Nutrient Levels in the Chesapeake Bay

Nutrient Trading Program Reduces Nutrient Load in Chesapeake Bay Watershed

Synopsis: Ten county conservation districts recently completed Pennsylvania Department of Environmental Protection (PA DEP) grants in which the districts assisted the farming community to generate nutrient reduction credits that were then made available for sale as part of the Nutrient Trading Program. The nutrient reduction credits were generated through the implementation of a number of Best Management Practices (BMPs) such as no-till planting, winter cover crop production, above-compliance manure storages, farm lane stabilization, mortality composters, stream bank fencing, riparian forest buffer planting, poultry manure export and rotational grazing. Collectively, the projects generated approximately 87,000 Nitrogen Credits and 1,800 Phosphorus Credits, which have been certified by the PA DEP.



Background: Nutrient Trading is a voluntary, market driven program that helps to identify and finance the most cost-effective solutions to reduce nutrient loads in a watershed. The

program allows nutrient generating sources (pictured here is a wastewater treatment plant, for example) to meet reduction goals (regulatory compliance) by acquiring nutrient reduction credits from another source (i.e. a

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PROJECT FACTS

Project: Nutrient Credit Generation through the installation of Best Management Practices (BMPs) by ten Pennsylvania Conservation Districts.

Anticipated Result: Improved water quality in the Chesapeake Bay Watershed through reduced nutrient runoff, as well as generation of Nutrient Credits for sale to Point Source operators.

Credits Generated: Over 87,000.

BMP	Impact	N Credits
No-Till	2,172	16,727
Cover Crops	2,478 acres	49,662
Riparian	2.4	86
Streambank Fencing	60 acres	3,377
Rotational	13	11
Manure	2	6,514
Mortality	3	4
Manure	794.43	10,680
Farm Lane	15,542	146

BMPs for reducing nutrients & sediment through the Nutrient Trading program:

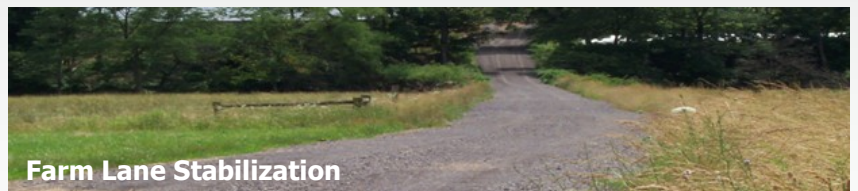
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farming operation or another wastewater treatment plant). Credits are generated when a source reduces its nutrient loads to a greater extent than is required. For example, to generate reduction credits, a nonpoint source must first ensure that it is meeting baseline compliance, and then that it is meeting minimum requirements referred to as "threshold". The installation of BMPs, which are above these baseline and "threshold" requirements, can then generate credits. Credits can be generated and traded within the same watershed (i.e. Susquehanna or Potomac), are expressed as pounds/year, and have a shelf life of one year (October –September) which can be renewed if the activity continues. Credits must be certified, verified and registered if being used to meet reduction goals (compliance) of another nutrient generating source.

Projects: Dauphin, Chester, Bedford, Berks, Cumberland, Lebanon, Mifflin, Potter, Somerset and Union county conservation districts received grants to implement credit generating BMPs that can be sold and used toward permit compliance. To date, over 87,000 Nitrogen Credits have been generated as a result of over 4,700 acres of no-till, cover cropping, buffer installation, streambank fencing and rotational grazing. Additionally, 2 manure storage units and 3 mortality composters were installed; over 15,500 feet of farm lanes were stabilized; and, nearly 800 tons of poultry manure was exported.

Results: Through the funding provided from the PA DEP grants, the conservation districts were able to assist the farming community to enhance local water quality, translating into the generation of nutrient trading credits. The variety of projects demonstrated which types of practices can generate the most credits for the least amount of money. These projects have been an invaluable tool as the Commonwealth strives to meet nutrient reduction goals and improve water quality in local streams, and ultimately the Chesapeake Bay.



**PACD • 25 N Front Street • Harrisburg, PA 17101
717-238-7223 • www.PACD.org**

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For more information on nutrient reduction strategies, please contact your local conservation district (visit <http://pacd.org/your-district/find-your-district/>). Funding for the Nutrient Trading Program is provided through a grant with the Pennsylvania Department of Environmental Protection.