



Chesapeake Bay Targeted Watersheds Grant Program



2006 Chesapeake Bay Targeted Watersheds Grants

Crop Management Projects

Regional Nutrient Use Efficiency in the Lower Susquehanna River Basin *Environmental Defense*

Lancaster and Chester Counties, Pennsylvania; Cecil County, Maryland
Targeted Watersheds Grant: \$582,500
Partner Contributions: \$260,600

Environmental Defense will work directly with 350 farmers in the Lower Susquehanna River Basin to improve on-farm nutrient use efficiency, including Plain Sect farmers who may be reluctant to participate in government-sponsored programs. The Initiative will demonstrate sustained yields with reduced nutrient application, and therefore reduced costs to farmers, through the use of three innovative, highly effective nutrient use efficiency tools. The Initiative, which is being conducted in partnership with the Natural Resources Conservation Service and the Lancaster County Conservation District, expects to reduce annual nitrogen loads to the Susquehanna River by over 2 million pounds from over 42,000 acres of farmland. The Initiative also will work to integrate a performance-based incentive program for nutrient use efficiency into USDA's Environmental Quality Incentives Program (EQIP).



The Chesapeake Bay Targeted Watersheds Grant Program provides financial and technical support to projects that expand the collective knowledge on the most innovative, sustainable and cost-effective strategies for reducing excess nutrient pollution within specific tributaries of the Chesapeake Bay.

The Program is a partnership among the Chesapeake Bay Program, the National Fish & Wildlife Foundation, the Chesapeake Bay Trust and the Environmental Protection Agency.

Park the Plow for Profit: A Continuous No-Till Transition Program *Pennsylvania Dept. of Environmental Protection*

Lancaster, Bedford and Bradford Counties, Pennsylvania
Targeted Watersheds Grant: \$800,000
Partner Contributions: \$847,500

The Pennsylvania Department of Environmental Protection -- in partnership with Penn State Cooperative Extension, USDA's Natural Resources Conservation Service, the Capital Area RC&D Council, the Chesapeake Bay Foundation, and the Pennsylvania Environmental Council -- will facilitate the conversion of 12,750 acres of cropland to continuous no-till agriculture. This conversion will reduce the annual nitrogen load to the Susquehanna River by over 99,000 pounds, and the annual phosphorous load by over 17,000 pounds. Certified Crop Advisors will work with farmers within the Middle, Indian and Cocalico watersheds of Lancaster County, Pennsylvania to develop individual crop management plans and facilitate the transition to continuous no-till. Qualified farmers then will be offered nutrient reduction credits that will be made available for sale to regulated point sources as part of the emerging Pennsylvania nutrient trading program in the Chesapeake Bay Watershed.

Innovative BMP Strategies in the Choptank River Watershed

Maryland Department of Agriculture

Caroline County, Maryland

Targeted Watersheds Grant: \$596,600

Chesapeake Bay Trust: \$200,000

Partner Contributions: \$1,096,000

The Maryland Department of Agriculture, in collaboration with the Agricultural Research Service Beltsville, the Caroline Soil Conservation District, the Natural Resource Conservation Service, the University of Maryland Extension Service, and Public Drainage Associations, will work with farmers in the Choptank River watershed to increase agricultural BMP implementation to reduce nutrient and sediment loads. The project includes developing a user-friendly BMP planning tool to help identify the most cost-effective opportunities for implementing BMPs. The project specifically will help implement and monitor the effectiveness of traditional cover crops, commodity cover crops, and drainage control structures in reducing nutrient loads. The project expects to reduce annual nitrogen pollution to the Tuckahoe sub-basin by over 31,000 pounds.

Manure and Poultry Litter Management Projects

Cost Effective Nutrient Reduction in the Upper Susquehanna River Watershed

Upper Susquehanna Coalition

New York

Targeted Watersheds Grant: \$500,000

Partner Contributions: \$607,841

The Upper Susquehanna Coalition will integrate innovative prescribed grazing with riparian preservation and restoration approaches on agricultural land in the Upper Susquehanna River Watershed. The project will use a Grazing Advocates program to develop grazing plans, promote livestock exclusion from waterways, and identify opportunities for wetland and buffer restoration. The project will monitor and evaluate the cumulative impact on water quality of implementing prescribed grazing on 2900 acres, creating 100 acres of riparian buffers and 10 miles of livestock exclusion, along with 70 acres of wetland and riparian restoration. The project expects to reduce annual nutrient pollution to the Upper Susquehanna River by over 43,000 pounds of nitrogen and 4,000 pounds of phosphorous. The Upper Susquehanna Coalition is a network of county natural resource professionals comprised of representatives from 15 counties to address water quality issues in the headwaters of the Susquehanna River and the Chesapeake Bay watershed.

Enhancing Nutrient Efficiencies on Dairy Farms in the Monocacy River Watershed

University of Maryland

Frederick, Carroll and Montgomery Counties, Maryland; Adams County, Pennsylvania

Targeted Watersheds Grant: \$798,300

Chesapeake Bay Trust: \$200,000

Partner Contributions: \$585,680

The University of Maryland, working in partnership with the Maryland Department of Agriculture and the Adams County Conservation District, will demonstrate the comprehensive use of three key management strategies to reduce nutrient losses from dairy farms in the Monocacy watershed by as much as 30-40%. The project includes: working directly with at least 20 farms to adopt precision feeding to reduce nitrogen and phosphorous overfeeding; developing a manure clearinghouse to broker the exchange of manure between farm that have excess manure and those that need manure to fertilize crops; and, encouraging early cover crop seeding to maximize their environmental benefits through farm-friendly

delivery systems such as aerial planting. The project expects to reduce annual nitrogen pollution to the Monocacy River by close to 250,000 pounds.

North River Watershed: Utilizing and Exporting Shenandoah Valley Organic Resources
Virginia Waste Solutions Forum

Rockingham County, Virginia
Targeted Watersheds Grant: \$1,000,000
Partner Contributions: \$331,001

As an outgrowth of the 2005 Waste Solutions Forum, this diverse partnership – including Virginia Tech, the Virginia Poultry Federation, the Dairy Foundation of Virginia, the Shenandoah RC&D Council, and the Chesapeake Bay Foundation, to name a few – will demonstrate a comprehensive and innovative approach to managing excess animal manure and poultry litter in the North River Watershed of the Shenandoah Valley. This initiative will 1) generate revenue from manure on poultry farms via bioenergy production, 2) decrease the cost of manure transport through nutrient concentration technologies, and 3) increase markets for manure. The project expects to reduce annual nitrogen pollution to the North River by over 6.3 million pounds, and annual phosphorous pollution by over 6.8 million pounds.

Urban/Suburban Stormwater Management Projects

Corsica River Watershed: A Community Response to Pollution Runoff
Chesapeake Bay Recovery Partnership

Queen Anne County, Maryland
Targeted Watersheds Grant: \$600,000
Chesapeake Bay Trust: \$200,000
Partner Contributions: \$250,000

This project, which is a partnership among the Chesapeake Bay Recovery Partnership, the Alliance for the Chesapeake Bay and the Maryland Department of Natural Resources, seeks to effectively address urban and suburban stormwater runoff in the Corsica River watershed by engaging residents in implementing non structural best management practices. The Partnership will conduct a targeted education and outreach campaign to raise awareness about the sources of stormwater runoff and relevant Best Management Practices. The Partnership also will help private land owners gain access to technical and financial resources to implement BMPs such as wetland restoration, bioretention projects, grassed swale improvements, reforestation, and pollution prevention activities. The project will result in the treatment of 50 acres of urban/suburban lands through the integration of 200 innovative non-structural BMPs on privately held lands, as well as restore 10 acres of wetlands and create of 50 acres of riparian buffers.

Paxton Creek Watershed: Stormwater Management for Pennsylvania Communities
Susquehanna River Basin Commission

Dauphin County, Pennsylvania
Targeted Watersheds Grant: \$725,000
Partner Contributions: \$735,800

Using the Paxton Creek Watershed as a model, this project will develop a multi-jurisdictional stormwater management structure spanning several municipalities in the greater Harrisburg area. To test the management structure and address water quality impacts, the initiative also will implement five stormwater demonstration projects that are supported by and funded through public-private partnerships. The demonstration projects include: 1) restoring a wetland corridor and establishing a wetland complex in a residential neighborhood; 2) establishing a recreational “greenspace” with bioretention measures and a riparian corridor on a former brownfield site; 3) implement bioretention measures for a large parking lot

and restore a degraded stream channel at the Pennsylvania State Police headquarters; 4) implement a partial offline creek treatment system to treat runoff from a major Interstate interchange; and 5) restore a riparian wetland corridor and establish bioretention measures to capture drainage from hardened elements of a city park. The demonstration projects combined will treat runoff from over 30 acres, and will restore and stabilize 4,000 feet of stream corridor. This effort represents a diverse partnership including the Susquehanna River Basin Commission, the Paxton Creek Watershed and Education Association, the Harrisburg Area Community College, the Dauphin County Conservation District, the local water authority, several local governments, and a local developer.

Market-Based Incentive Projects

Effective Strategies for Reducing Nutrient Loads in the Opequon Creek Watershed

Virginia Polytechnic Institute and State University

Frederick and Clarke Counties, Virginia; Berkley and Jefferson Counties, West Virginia

Targeted Watersheds Grant: \$1,000,000

Partner Contributions: \$350,400

A broad-based partnership, including Virginia Tech, West Virginia University, the Frederick-Winchester Service Authority, as well as federal, state and local governments, community groups and business interests, will use proven and innovative best management practices to accelerate nutrient reduction in the Opequon Creek Watershed. The Opequon faces a combination of agricultural and urban nonpoint source loads and a wastewater treatment plant that is in urgent need of expansion capacity. BMPs to be implemented include: creating or enhancing ten wetlands – including floodplain and pocket wetlands; creating six water quality swales; and, installing 32,000 feet of stream fencing. The project expects to reduce annual nitrogen pollution to Opequon Creek by 108,000 pounds, and annual phosphorous pollution by 13,500 pounds. The project will result in a plan for the Frederick-Winchester Service Authority to obtain nutrient offset credits for wastewater treatment plan expansion.

Nutrient Assimilation Credits: Opportunities for Enhanced Oyster Production

Virginia Polytechnic Institute and State University and Virginia Commonwealth University

St. Mary's County, Maryland; Northumberland County and Newport News, Virginia

Targeted Watersheds Grant: \$540,000

Partner Contributions: \$189,382

Virginia Tech is partnering with Virginia Commonwealth University and two oyster producers to demonstrate and assess the potential for commercial oyster production to be credited with water quality improvements under Chesapeake Bay water quality trading and offset programs. The project will develop the quantification and verification protocols necessary for the production and sale of nutrient assimilation credits produced by high density native oyster cultivation and harvest. Four demonstration sites will be installed and monitored – two in Maryland (St. Jerome Creek and St. Thomas Creek in St. Mary's County) and two in Virginia (Spencer's Creek in Northumberland County and Lucas Creek in Newport News).

* * * * *

For more information visit <http://www.nfwf.org> or contact Amanda Bassow at amanda.bassow@nfwf.org or (202) 857-0166.