



United States Department of Agriculture
Natural Resources Conservation Service

Chesapeake Bay Watershed Initiative

Conservation Beyond Boundaries **CBWI**



The Need

The Chesapeake Bay Watershed is the nation's largest estuary, encompassing a vast network of streams, creeks, and rivers that covers 64,000 square miles in the eastern United States. While Bay health has improved since the 1970s, excess nutrients and sediment continue to adversely affect local rivers and streams in this watershed.

USDA's Natural Resources Conservation Service (NRCS) identified watersheds with the highest concentrations of nutrients and sediment as priorities in the six-state Chesapeake Bay Watershed. Since 2009, NRCS has worked through the Chesapeake Bay Watershed Initiative (CBWI) to provide targeted financial assistance for faster implementation of conservation practices on cropland, pastureland and private forest land in these priority watersheds. Though some form of conservation has been applied or installed on 96 percent of the Bay cropland, more gains can be achieved with additional practices in the watershed.

Goals

The Obama Administration released its restoration strategy for the Chesapeake Bay in May 2010. USDA's commitment to developing new approaches and strategies to accelerate private lands conservation in the Bay watershed is outlined in that strategy. The CBWI plays a key role in helping USDA meet its overall goal of applying conservation practices on 4 million acres of agricultural working lands in high priority watersheds by 2025 to improve water quality.

Other goals include improving water quality, enhancing wildlife habitat, sustaining fish and wildlife, and conserving natural resources in the Chesapeake Bay Watershed.

Results/Outcomes

Overall, producers are making significant progress in reducing sediment and nutrient losses from farms. NRCS's Conservation Effects Assessment Project (CEAP) study shows that conservation practices have reduced edge-of-field losses of sediment by 55 percent, nitrogen in surface runoff by 42 percent, nitrogen in subsurface flow by 31 percent, and phosphorus by 40 percent.

In fiscal years 2010-2012, producers participating in CBWI used USDA assistance to apply and install conservation practices on about 650,000 acres of land.

In fiscal year 2012, NRCS dedicated about \$50 million in financial and technical

assistance toward a targeted restoration effort through the CBWI. Nearly 1,100 landowners in priority watersheds plan to use about \$40.3 million to apply or install conservation systems on 109,000 acres through the CBWI alone.

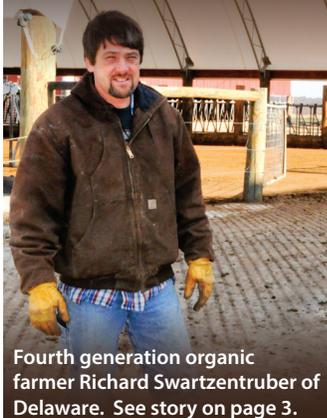
In addition, USDA uses other funding sources such as the Environmental Quality Incentives Program (EQIP) to help producers improve water quality in the watershed as part of USDA's overall effort to restore the Chesapeake Bay.

Programs

Congress authorized the CBWI in the 2008 Farm Bill and provided USDA with \$188 million in financial and technical assistance to help producers voluntarily implement conservation practices in this vital region. However, USDA has invested much more funding than was

originally appropriated—about \$235 million since 2008. CBWI helps producers use conservation practices that control erosion and sediment; reduce nutrient loss and protect stream corridors. Other commonly used conservation treatments include manure and pasture management.

The voluntary work completed by landowners is delivering results because they are applying the most effective conservation practices on their operations.



Fourth generation organic farmer Richard Swartzentruber of Delaware. See story on page 3.

2012 Progress Report

Delaware
District of Columbia
Maryland

New York
Pennsylvania

Virginia
West Virginia



Feature Story
Managing Nutrients for Better Herd Health and Improved Water Quality

Alex Botkin and his brother, Josh, run a dairy heifer operation in Augusta County, Virginia, on 32 acres of land leased from their father. The brothers buy Holstein heifers at about 400 pounds and feed them corn silage, grain, and hay until they reach about 1,100 pounds. Confining 325 dairy heifers in small paddocks

during this “growing period” created several resource concerns. Severe erosion in the pastures and an accumulation of excess manure were producing nutrient runoff to surface water. The livestock were subject to unhealthy foot conditions and water-borne diseases because they were constantly standing in mud and manure with no access to clean drinking water.

Alex and Josh sought help from NRCS because they were concerned about the health of their livestock, impacts on the local and regional water quality,

and the public image of their farm. NRCS worked with them to develop a Comprehensive Nutrient Management Plan (CNMP) and install recommended conservation practices under CBWI. The Botkin brothers built a feeding facility to move the cattle out of the impaired areas, fenced a portion of a tributary to keep the cattle out of the stream, and installed three troughs to be used as water supply for three grazing units.

This conservation system is already yielding many positive benefits for

these producers. The feeding facility captures an estimated 1,613 tons of manure each year until the Botkins can safely spread it on crop, hay, and pasture fields according to their nutrient management plan. As a result, over 24,000 pounds of nitrogen and 12,000 pounds of phosphorus are being managed so that they do not end up in the Chesapeake Bay. A riparian buffer further decreases nutrient runoff to waterways and establishes wildlife habitat.

Fiscal Year 2012 Chesapeake Bay Watershed Initiative NRCS Financial Assistance (FA) and Active and Completed Contracts

Chesapeake Bay Watershed Initiative (CBWI)			
State	Number of Contracts	FA Contract Obligations	Total Acres
Delaware	55	\$1,628,703	4,775
Maryland	183	\$7,383,139	12,087
New York	11	\$1,385,968	1,248
Pennsylvania	255	\$14,522,440	26,733
Virginia	441	\$11,931,901	51,292
West Virginia	141	\$3,400,326	13,254
Totals	1,086	\$40,252,477	109,389

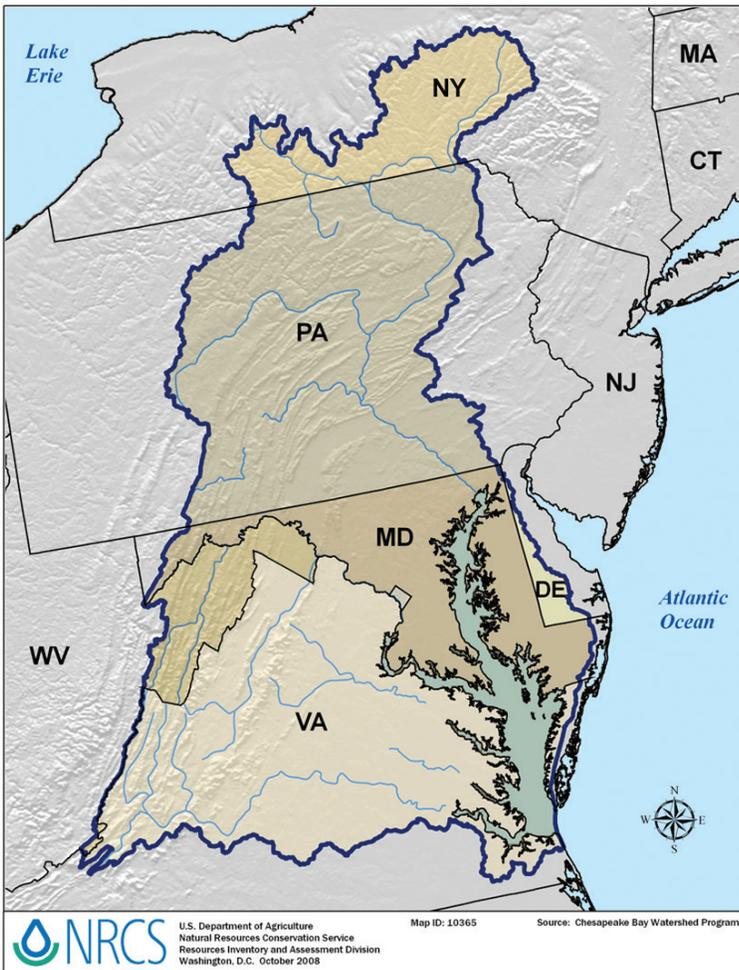


Statistical source: Protracts for new enrollment, October 4, 2012.

Working with agricultural producers in high-priority watersheds to voluntarily implement conservation practices designed to reduce nitrogen, phosphorus and sediment; enhance habitat for fish and wildlife and; increase working agricultural and forest land productivity and sustainability.

Helping People
 Help the Land

Results



In Maryland

Dairy farmers Chad and Vivian McCuller of Maryland converted 90 acres of cropland to pasture and as a result, the McCullers prevented about 180 tons of soil from eroding into a nearby stream annually. Using CBWI funds, the couple installed conservation practices that will keep 990 pounds of nitrogen and 2,160 pounds of phosphorus on their fields, preventing them from entering a nearby stream.

In Delaware

Fourth generation organic farmer Richard Swartzentruber of Delaware has seen tremendous gains from his 15-year working relationship with NRCS. He has installed many conservation practices, including a hoop structure for his poultry manure and a liquid manure storage tank for his commercial dairy operation. These practices have eliminated the potential for water to reach his manure and run off into nearby streams.

CBWI focuses on the use of conservation practices that provide:

Erosion and sediment control

- Residue and tillage management
- Cover crops
- Grassed waterways
- Terraces
- Diversions
- Vegetative cover

Nutrient loss reduction

- Nutrient management
- Feed management
- Cover crops

Stream corridor protection

- Streambank fencing
- Riparian buffers

Other commonly used practices include waste storage facilities, heavy use area protection, prescribed grazing systems and manure management systems.