



NRCS 2008 Conservation Activities

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Helping People Help the Land

Assisting West Virginia Farmers

NRCS provides land-owners with conservation technical assistance (CTA) to address water quality, erosion control, grazing management, and wildlife habitat improvement issues on their properties.



Fencing and trees help protect water quality.

A Hardy County cattle producer requested help from NRCS to find an alternative to in-stream watering for livestock. NRCS staff worked with Claude and Sheila Bradfield to write a conservation plan to document resource concerns, landowner objectives, and their decisions. The plan called for excluding cattle from the stream by fencing a 4.5 acre riparian forested buffer to protect 1,540 feet of stream bank and capture runoff from the barn lot. Trees were planted to provide wildlife habitat and shade the stream. A stream crossing allows cattle to cross at only one location. As a result of this project, other producers have inquired about installing similar practices to reduce the effects of pesticides, fertilizers and sediment in the Chesapeake Bay.



Students use magnifying scopes to examine soil properties.

District of Columbia Students "Dig" Soils

NRCS employees regularly partner with schools in the District of Columbia to provide hands-on soil activities at outdoor classroom events like the Spring Urban Agricultural Fair. Students in the 4th through 9th grades participated in the "All About Soils" program to discover how soils can affect water quality.

The students used augers to dig soil samples, made mini-soil profiles of "Sunnyside" the representative soil for Washington, D.C., and learned that healthy and productive soil is the building block for sustainable agriculture. Teachers are provided with resource materials, including more hands-on activities that can be incorporated into classroom studies.

Creating Wetlands and Habitat for Wildlife in Pennsylvania

Tracy Eslinger had two low-lying areas of cropland on his 5-acre farm that were not suitable for farming. Located in Perry County, Pennsylvania, Tracy's farm is within the Chesapeake Bay watershed. Tracy decided that this land would be ideal for wetlands and wildlife habitat, so he opted to have the areas converted into wetlands.

NRCS and the U.S. Fish & Wildlife Service partnered on the design and development of the two wetland areas— one 10-acre site, and one 2-acre site. An NRCS Earth Team Volunteer assisted with the design work and drawings, and NRCS employees worked with the landowner to develop a conservation plan. NRCS cost-shared the project through the Wetlands Reserve Program (WRP), which covered a little over half of the \$60,000 total cost. Other partners included Ducks Unlimited, the Chesapeake Bay Foundation, and the Foundation for California University of Pennsylvania.



Today, the wetlands abound with song birds, geese, ducks, and even fish.

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Did You Know?

- According to the NRCS 2003 National Resources Inventory (NRI), there are about 44,522,000 acres in the Chesapeake Bay watershed.
- Cropland and pastureland together account for roughly 10,883,600 acres (Source: 2003 NRI)
- Between 1997 and 2003, an estimated 210,700 acres of cropland and pastureland were lost to development. (Source: 2003 NRI)

Conserving Natural Resources in the Chesapeake Bay

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Investing in the Future

Chesapeake Bay is the largest of our nation's 130 estuaries, and one of the most diverse and productive in the world. The watershed spans almost 45 million acres across 6 states and the District of Columbia. It is home to 16 million people and a major agricultural area.

Unfortunately, a growing population, development and agricultural runoff contribute to sediment and nutrient pollution in the bay. NRCS works side-by-side with farmers and other individuals and groups to balance economic goals with environmental needs.

NRCS staff provide technical assistance to help landowners develop a conservation plan. This plan includes an assessment of natural resource concerns, recommended solutions, and potential sources of funding to help implement needed conservation practices.



Robert Lewis of NRCS and landowner John Jett discuss wetlands restoration.

Farm Bill programs administered by NRCS are a major source of financial assistance for improving water quality. Since 2002, the Environmental Quality Incentives Program alone has provided nearly \$140 million to landowners for installing conservation practices. These practices are designed to better

manage animal waste, improve grazing lands, enhance wildlife habitat, and reduce erosion on crop fields. The total value of NRCS technical and financial assistance during 2008 to help landowners improve water quality in the Chesapeake Bay watershed is estimated at more than \$98.5 million.

FISCAL YEAR 2008 CHESAPEAKE BAY FUNDING—NRCS TECHNICAL ASSISTANCE

State	Environmental Quality Incentives Program (EQIP)	Wildlife Habitat Incentives Program (WHIP)	Agricultural Management Assistance (AMA)	Conservation Security Program (CSP)	Farm and Ranch Lands Protection Program (FRPP)	Wetlands Reserve Program (WRP)	Conservation Reserve Program (CRP)	Conservation Technical Assistance (CTA)
Delaware	\$ 1,107,221	\$ 64,366	\$ 12,919	\$ 0	\$ 16,293	\$ 42,037	\$ 29,408	\$ 714,770
Maryland*	\$ 2,079,258	\$ 324,420	\$ 96,715	\$ 53,284	\$ 276,395	\$ 282,733	\$ 697,475	\$ 4,559,872
New York	\$ 695,501	\$ 152,120	\$ 28,206	\$ 0	\$ 0	\$ 26,600	\$ 48,971	\$ 1,274,072
Pennsylvania	\$ 2,411,883	\$ 82,616	\$ 133,782	\$ 82,734	\$ 249,952	\$ 123,424	\$ 1,131,351	\$ 5,032,054
Virginia	\$ 1,306,998	\$ 205,226	\$ 0	\$ 57,399	\$ 45,700	\$ 132,271	\$ 667,068	\$ 4,894,394
West Virginia	\$ 779,222	\$ 196,951	\$ 39,235	\$ 0	\$ 185,269	\$ 0	\$ 145,640	\$ 1,220,629
Totals	\$ 8,380,083	\$ 1,025,699	\$ 310,857	\$ 193,417	\$ 773,609	\$ 607,065	\$ 2,719,913	\$ 17,695,791

*Note: Maryland numbers include figures for Washington, D.C.



Roofed structure eliminates muddy heavy use areas.

Improving Water Quality

NRCS provides funding to plan and install conservation practices through a variety of Farm Bill programs. In 2008, Farm Bill funds within the Chesapeake Bay Watershed totaled nearly \$62 million. In addition to this figure are \$5 million in Conservation Innovation Grants for public-private partnerships to stimulate cutting edge technologies.



Conservation Innovation Grants

In 2008, NRCS provided \$5 million in Conservation Innovation Grants to fund 11 projects in six states. These funds will be used by state and local governments, non-governmental organizations and individuals to promote the development and adoption of innovative conservation approaches and technologies to improve water quality and restore habitat in the Chesapeake Bay.

FISCAL YEAR 2008 CHESAPEAKE BAY FARM BILL FUNDING—NRCS FINANCIAL ASSISTANCE						
State	EQIP	WHIP	AMA	CSP	FRPP	WRP
Delaware	\$ 5,442,783	\$ 181,952	\$ 146,835	\$ 0	\$ 1,806,889	\$ 154,343
Maryland*	\$ 8,711,666	\$ 926,819	\$ 411,560	\$ 461,530	\$ 2,638,020	\$ 5,741,957
New York	\$ 2,568,408	\$ 366,790	\$ 85,377	\$ 0	\$ 0	\$ 0
Pennsylvania	\$ 9,870,229	\$ 397,663	\$ 701,143	\$ 565,517	\$ 5,975,636	\$ 345,613
Virginia	\$ 6,306,118	\$ 641,550	\$ 0	\$ 463,865	\$ 1,082,001	\$ 269,000
West Virginia	\$ 2,626,427	\$ 165,472	\$ 79,999	\$ 0	\$ 2,688,206	\$ 0
Totals	\$ 35,525,631	\$ 2,680,246	\$ 1,424,914	\$ 1,490,912	\$ 14,190,752	\$ 6,510,913

*Note: Maryland numbers include figures for Washington, D.C.

HIGHLIGHTED CONSERVATION PRACTICES APPLIED IN 2008 IN THE CHESAPEAKE BAY WATERSHED			
Conservation buffers	8,533 acres	Residue management	163,665 acres
Contour farming	10,027 acres	Stream bank, shoreline stabilization	153,496 feet
Cover crop	164,852 acres	Upland wildlife habitat	56,814 acres
Irrigation water management	19,055 acres	Waste storage facilities/composting facilities	449 facilities
Pest management	158,953 acres	Waste utilization	23,320 acres
Prescribed grazing systems	33,262 acres	Wetlands created, restored or enhanced	3,111 acres

Protecting Farmland and Water Quality in Virginia

Beef producer Dorothy Lee Rosen has been caring for the land on her Shenandoah Valley farm for more than 50 years. She recently entered 122 acres of prime agricultural land into a permanent easement under the Farm and Ranch Lands Protection Program (FRPP).

Rosen runs about 60 cross-bred cows on 139 acres of rolling hills at the foot of the Blue Ridge Mountains. She has seen many farms in this, the state's

top agricultural region, give way to urban development.

Rosen began investing in conservation years ago. She recognized that it was as important to take care of the land as her cattle. She switched to rotational grazing, installed fencing to keep cattle out of the streams and maintained a natural buffer of grasses and willows along stream banks. Steel rebar crossovers allow cattle

and equipment to move safely across waterways without causing erosion. Rosen is a past winner of the Virginia Beef Cattleman's Environmental Stewardship award for her water quality efforts.

"Most farmers have a relationship with their land," says Rosen. "My ancestors helped settle this Valley, and I feel that I have been entrusted to take care of the land. I don't want to see it paved over."



Conservationist Dorothy Lee Rosen

Delaware Poultry Farmer Invests in Conservation

Chip West operates a mid-size poultry farm in the nation's number one broiler-producing county. His Sussex County operation has the capacity for 80,000 chickens, depending on type.

Like other poultry producers in this area, West is working with NRCS staff to keep his operation environmentally friendly and profitable. He has made wise choices based on conservation planning that positively affect the quality of the water leaving his farm and ultimately entering into the Chesapeake Bay.

West is a conservation investor. "Every practice that I worked with NRCS to implement has an environmental benefit and helps me production wise." He utilized NRCS and district financial assistance to install a wide range of nutrient management practices that include a manure storage shed, a composter and heavy use area protection (HUAP) pads.

His shed keeps the poultry manure dry, away from water and in proper storage until time for spreading. In addition, dry manure is easier

to apply more accurately on fields for fertilization. His composter provides a safe and effective way to handle chicken mortality. The HUAP pads outside the chicken houses reduce the chance of manure entering the groundwater and surface water.

Concrete pads make it easier to clean up manure and reduce the impact of heavy equipment traffic at the end of the poultry houses.



Concrete pad makes it easier to clean up manure.

"I try to hold myself to the highest standard, but have not been perfect. I have made every mistake, but NRCS, the district and others have been great at educating me. I learn better, so I do better."

Maryland Farmers Enhance Aquatic Habitat With Stream Bank Improvement



NRCS and its conservation partners are restoring and creating new aquatic and wildlife habitat throughout the state using the Wildlife Habitat Incentives Program (WHIP).

Farmers are using NRCS technical and financial assistance and partnership

Replacing a culvert pipe with concrete slats in the streambed provides a fish-friendly livestock crossing.

support to remove stream blockages and restore access to streams for migratory and resident fish in the Chesapeake Bay Watershed. Conservation agencies have worked with Maryland landowners to reopen more than 400 miles of streams.

A Stream Habitat Improvement Project on a Western Maryland farm removed a culvert pipe blocking a stream and installed concrete slats

in the streambed to provide a stable and fish-friendly livestock crossing. The farmer also fenced cattle out of the stream to protect water quality and provide riparian habitat. This conservation project provides quality fish habitat and supports efforts to reverse the historic decline in species populations.

NRCS also provides assistance with improvement of stream habitat and restoration of stream banks and shorelines.

Organic Farm in Upstate New York Benefits Chesapeake Bay Water Quality

With the help of her husband and brother-in-law, Kathie Arnold operates a 140-cow organic dairy in Cortland, New York. To support their herd, they grow hay and grain on 700 acres of rolling hills in the Tioughnioga River Watershed.

Although the Arnold Farm is located in upstate New York,

out of concern for local waters and the Chesapeake Bay, Arnold stopped using pesticides on her farm. In addition, she built two manure storage units, implemented a roof water management system and began composting manure.

Arnold utilized the Agricultural Management

Assistance (AMA) program and conservation technical assistance from NRCS, along with state and partner funding to implement conservation practices to benefit water quality.



The Arnold's organic dairy farm