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U.S. DEPARTMENT OF AGRICULTURE
BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON WATER RESOURCES AND THE ENVIRONMENT

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Madam Chairwoman and Members of the Subcommittee:

Thank you for the opportunity to appear before the Subcommittee to describe the relationship between water quality and agriculture and the activities of the Natural Resources Conservation Service (NRCS) to provide assistance on this issue. My name is Richard Coombe, and I serve as the Regional Assistant Chief of NRCS for 23 eastern States including Puerto Rico. The topic today is of special interest to me as I served as the Chief Executive Officer of the Watershed Agriculture Council, Inc. of the New York City Watershed. The New York City watershed project was a showcase example of how agricultural forest landowners took successful proactive steps to protect the water supply for the City of New York. That work laid the foundation for my interest and work on a regional level with NRCS. Through the technical assistance and program delivery NRCS administers, our employees work in partnership with private landowners to take proactive steps to improve on water quality across the Nation.

Helping People Help the Land

For over 70 years, NRCS has been committed to working with America's private landowners through a locally led, voluntary cooperative conservation approach. Because of this "ground-up" approach to helping people, we describe our mission as "helping people help the land." The phrase is succinct and it effectively describes what we do, so our Agency has adopted "helping people help the land" as our mission statement. And even though the words help others understand what we do as an agency, the concept of working closely with America's agriculture producers remains the same commitment to providing quality service with improved environmental benefits and a healthier landscape.

Importance of Clean Water

Water quality is a primary indicator of the health of our environment and the quality of water reflects what occurs on the land. NRCS helps farmers improve their land in an environmentally sound manner. Below are a few examples of recent activities we have undertaken that demonstrate our commitment to addressing water quality issues:

- Developed United States Department of Agriculture (USDA) policy on market-based incentives

- Signed Memorandum of Understanding with the U.S. Environmental Protection Agency
- Assisted landowners in treating over 42 million acres with conservation measures
- Landowners have applied over 5,000 Comprehensive Nutrient Management Plans (CNMP) in fiscal year (FY) 2006 for livestock manure management with financial and technical assistance from NRCS
- Landowners have applied approximately 28,400 CNMPS, since FY 2002 with financial and technical assistance from NRCS

The result is better water quality for drinking, recreation, wildlife, fisheries and industry. Water quality concerns from agriculture are generally defined as non-point source (NPS) pollution. NPS is pollution that comes from diffuse sources. This can make identification of the source of a water quality problem difficult. Often a water quality problem from NPS is the result of actions by many landowners, both rural and urban. Consequently, solutions to NPS water quality problems can be difficult to determine and contentious to implement. While other sources of NPS such as urban runoff can be significant, agriculture's effect is magnified by the large percentage of land in agriculture use, about 41 percent in the continental United States. Fortunately, there are many changes agriculture producers can and have made voluntarily with technical and financial assistance available through a variety of sources. Farmers in many parts of the country are using these programs to implement reduced tillage and other forms of residue management, develop and implement CNMPs, and install conservation buffers.

Farmers and ranchers know that sound, profitable farming and maintaining clean water supplies go hand in hand, and through our technical assistance, cost-share, conservation use, and stewardship programs, we are assisting the agriculture and forestry sectors to realize their tremendous potential to provide increasing positive environmental benefits.

Working Lands and Conservation Planning

The focus of NRCS's conservation efforts is squarely centered upon working lands and upon ensuring that these lands continue to produce valuable agricultural commodities and contribute to local economies, while at the same time protecting our national treasure of soil, water, fish and wildlife habitat and other related natural resources. For NRCS, this has always meant voluntary, incentives-based conservation activities. This approach has proven time and again that when given sound information, guidance, and technical assistance, farmers and ranchers voluntarily adopt, install, and maintain conservation practices. Locally-led conservation that is developed cooperatively with farmers and ranchers produces more effective, long-lasting, and economically viable results than regulation and other mandatory approaches.

Madam Chairwoman, if you visit any one of the 3,077 counties in the United States, you would likely find that agricultural producers have a relationship with NRCS local staff founded upon the technical knowledge and resources that are available through our local field offices. This technical assistance is funded through the Conservation Technical

Assistance (CTA) Program which provides direct conservation planning and implementation assistance. This program provides the infrastructure and technical capability for our agency to assist program participants to apply conservation on the land. In addition, funds from the CTA Program also support many other priority activities including provision of the initial planning and resource information used by landowners to access all conservation programs and the development, transfer and maintenance of the NRCS Web-based electronic Field Office Technical Guide (e-FOTG), which supports all NRCS programs.

With CTA Program assistance, the producer then identifies the unique resource concerns of his/her operation as a starting point and develops a conservation plan. This conservation plan is the foundation of locally-led cooperative conservation. In essence, a producer's conservation plan is a roadmap and decision-making tool for the future management of his/her operation. The plan is dynamic, providing different options for different situations (eg, weather, cropping patterns) and can be modified as conditions change, or as the producers establish new production or conservation priorities.

Once the conservation plan is developed and individual farmers or ranchers decide to adopt specific conservation practices or systems, they may utilize assistance from the suite of cost-share, conservation use, or stewardship programs that NRCS offers through Farm Bill and other authorities. NRCS administers 23 conservation programs. While each program provides important and demonstrable natural resource improvements, the specific programs with a priority for improving water quality are as follows:

Working Lands Cost-share Programs

Environmental Quality Incentives Program

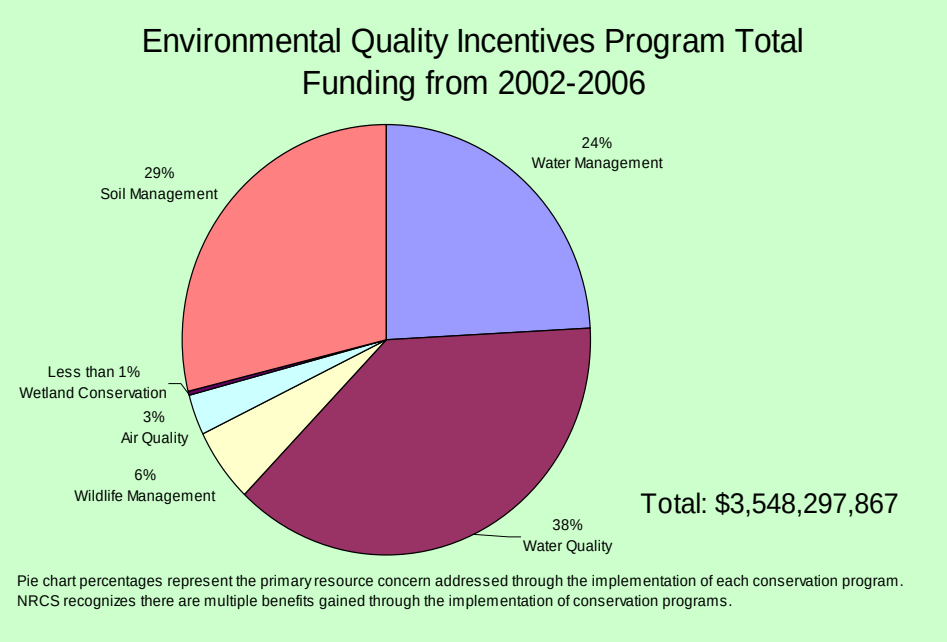
The Environmental Quality Incentives Program (EQIP) is the flagship of the working lands conservation program portfolio. Funding for EQIP in the 2002 Farm Bill greatly expanded the program's availability. Including funding obligated in FY 2002 through FY 2006, totaling almost $3.1 billion, EQIP will benefit close to 185,000 participants. In addition, EQIP leverages additional funding from landowner match requirements and State and local cost-share programs. For individuals, the Federal share can be up to 75 percent, and up to 90 percent for limited resource farmers. 60 percent of total EQIP funds are directed to address livestock-related resource concerns.

The objective of EQIP is to optimize an environmental benefit which begins with addressing five national priorities including reduction of nonpoint source pollution, conservation of ground and surface water resources, reduction of emissions, reduction of soil erosion and sedimentation from agricultural lands, and promotion of at-risk species habitat. The program provides flexible technical and financial assistance to landowners that face serious natural resource challenges in their management of cropland, grazing lands, wetlands, and fish and wildlife habitat.

We have also been able to increase program flexibility and improve program features to make EQIP one of the most popular and effective conservation efforts in the Federal Government.

Figure 1. demonstrates the broad range of natural resource issues that EQIP addresses, including 38 percent of funding going toward water quality improvement practices.

Figure 1.



In the Department's 2007 Farm Bill proposal, it is recommended to consolidate and reauthorize existing cost-share programs such as the Environmental Quality Incentives Program, the Wildlife Habitat Incentives Program, the Agricultural Management Assistance Program, the Forest Land Enhancement Program, the Ground and Surface Water Conservation Program and Klamath Basin Program into a newly designed EQIP which will simplify and streamline activities, reduce redundancies and produce more cost-effective environmental benefits. The Department's 2007 proposal also includes the creation of a new Regional Water Enhancement Program within EQIP that focuses on cooperative approaches to enhancing water quality and/or quantity on a regional scale.

- **Conservation Innovation Grants**

Authorized under EQIP in the 2002 Farm Bill, NRCS also offers the Conservation Innovation Grants (CIG) program. CIG is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies for agricultural production while leveraging Federal investment in environmental enhancement and protection. Under CIG, competitive grants are awarded to eligible entities, including State and local agencies, non-governmental organizations, tribes, or

individuals. CIG enables NRCS to work with other public and private entities to accelerate technology transfer and adoption of promising technologies and approaches to address some of the Nation's most pressing natural resource concerns. CIG will benefit agricultural producers by providing more options for environmental enhancement and compliance with Federal, State, and local regulations.

In FY 2006, CIG was implemented with three components: National, Chesapeake Bay Watershed, and State. The grants stimulated the development and adoption of innovative technologies and approaches through pilot projects and conservation field trials.

One example of the kind of project funded through this program that benefits water quality in the Chesapeake Bay is a study of the effects of Precision Dairy Feeding to Reduce Nutrients by the Chesapeake Bay Foundation. The goal was to reduce agricultural non-point source pollution, due to excessive loadings of sediment and nutrients from livestock manure. Precision dairy feeding was identified as a critical component to reduce non-point agricultural water pollution. Through this project, the Chesapeake Bay Foundation and its partners worked with Pennsylvania dairy producers to bring about significant changes in the dairy industry's standard feeding practices to reduce phosphorus intake through feeding and to improve water quality.

- **Chesapeake Bay Efforts**

An example of a regional approach to address water quality issues through our conservation programs can be seen in the Chesapeake Bay watershed. The Chesapeake Bay watershed has the highest land-to-water ratio of any estuary in the United States, giving land-based activities significant influence over the condition of the Bay. Crop and pasture lands together comprise approximately 25 percent of the watershed, second only to forest land (47 percent). Between 1985 and 2005, agriculture achieved substantial reductions of nitrogen, phosphorus and sediment discharges, according to the Chesapeake Bay watershed model. Basin-wide, agricultural lands reduced nitrogen discharges by approximately 43.5 million pounds per year, phosphorous discharges by 3.2 million pounds per year and sediment discharges by 1.1 million tons per year.

These estimated reductions in pollutants, however, have been insufficient to support sustainable populations of the Bay's living resources. Excess inputs of nutrients and sediment from a variety of sources continue to flow from tributaries into Bay waters. NRCS and its partners are committed to ensuring that agriculture continues to do its part to restore the Chesapeake. Here are some highlights of recent activities:

- In FY 2006, NRCS provided more financial and technical assistance funding for agricultural conservation in the Bay watershed than any other federal agency, approximately $80 million.
- NRCS, through the Environmental Quality Incentives Program (EQIP), is working in Bay watershed states to increase the adoption by producers of precision animal feeding practices.

- NRCS is working with the Chesapeake Bay Program to improve data collection and modeling for agriculture.
- USDA and EPA signed a Memorandum of Agreement to enhance cooperation on nutrient reduction activities in the Bay watershed.
- USDA and EPA signed a Memorandum of Agreement to improve coordination of water quality trading activities. The MOA includes a commitment to support a trading pilot project in the Bay watershed.

Our partners are likewise stepping up efforts.

- The Maryland Department of Agriculture provided $8 million in cover crop funding in 2006.
- The State of Pennsylvania passed water quality credit trading regulations, providing for innovative means of meeting water quality goals.
- The nonprofit Chesapeake Bay Foundation has aggressively moved to fund agricultural conservationists that work directly with farmers.
- Scientists in the Choptank watershed are researching the environmental impacts of agricultural conservation practices.

The rapid pace of development in the watershed threatens to overwhelm the positive actions undertaken by all sectors. Stakeholders in the Chesapeake Bay understand that a viable and vibrant agricultural forestry sector is critical to the future of the Bay, and have coalesced around an effort to increase the financial and technical assistance funding available to farmers in the Bay watershed.

Working Lands Conservation Use Programs

Wetlands Reserve Program

The Wetlands Reserve Program (WRP) is a voluntary program through which landowners are paid to retire cropland from agricultural production if those lands are restored to wetlands and protected, in most cases, with a long-term or permanent easement. Landowners receive fair market value for the rights they forgo associated with protecting the land, and are provided with cost-share assistance to cover the restoration expenses. The goal of WRP is to maximize wildlife benefits and wetland functions and values. One of the important functions and values of wetlands is improved water quality and quantity. WRP is the principle USDA program to help meet the President's Wetlands Initiative goal to create, restore and enhance 3 million acres of wetlands by 2009. Properly functioning wetlands have a tremendous positive impact on water quality. Private landowners have enrolled over 1.9 million acres in this program through FY2006.

Our 2007 Farm Bill proposal seek to add more than 1 million additional acres to WRP, brining the overall enrollment to more than 3.5 million acres or the size of the State of Connecticut.

Conservation Reserve Program

The Conservation Reserve Program (CRP), administered by the Farm Service Agency, provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. There are more than 36 million acres enrolled in the program and planted to cover crops to stop soil and nutrients from washing into waterways. Through January 2007, CRP has restored 2 million acres of wetlands and 2 million acres of buffers. CRP reduces soil erosion across the Nation by 454 million tons each year.

Working Lands Stewardship Program

Conservation Security Program

The Conservation Security Program (CSP), as authorized by the 2002 Farm Bill, is a voluntary program that provides financial and technical assistance for the conservation, protection, and improvement of natural resources on tribal and private working lands. This working lands program provides payments for producers who practice good stewardship on their agricultural lands and incentives for those who want to do more.

In the almost 4-year period this program has been in operation, NRCS has offered the program in 280 watersheds and has rewarded nearly 19,400 stewards on 15.5 million acres of working agricultural land.

A typical CSP contract was recently awarded to a New Castle County grain operator in Delaware. This landowner then worked cooperatively with NRCS to improve water quality in the Chesapeake Bay. The landowner created and restored wetlands, installed conservation buffer strip, developed wildlife habitats for waterfowl, and utilized irrigation water management, filter strips and no-tillage to protect both soil and water resources.

Working Lands Future Based Incentives

Using the market to promote conservation is an important part of our future. For example, the Natural Resources Conservation Service strategic plan draws on three closely linked, overarching strategies that support one another: Cooperative Conservation, the Watershed Approach and the Market Based Approach. The goal is to broaden the use of voluntary market mechanisms for the provision of environmental and ecosystem services. These mechanisms include water quality credit trading, mitigation banking, competitive offer-based auctioning and eco-labeling. New market based approaches will compliment our existing programs, while broadening the opportunities for conservation.

Let me give you an example of a project involving water quality trading by agriculture producers who live and farm in the New York City Watershed. Instead of building a multi-billion dollar filtration plant, the city worked with local landowners and agribusiness to address water quality issues on nearly 500,000 acres of farm and forest land in the watershed that provides the residents of New York City with drinking water. The NRCS provided the technical assistance for this project and the City of New York provided the financial assistance. This collaborative effort between local, State and Federal stakeholders resulted in improved water quality in the basin and the avoidance of filtration, saving the City $4 to$ 8 billion in capital costs.

Working Lands Information Tools

Part of our role at USDA is to help provide information and the tools necessary for our customers and partners, so they can make good land use decisions. We're continually working on new tools. Every year NRCS measures the changes of the resource base on private lands through the National Resources Inventory (NRI). The NRI is a statistical survey of natural resource conditions and trends and it assesses soil erosion, land cover and use, wetlands, habitat diversity, selected conservation practices and related resources. In 2006, the NRI shows a 43 percent reduction in cropland soil erosion between 1982 and 2003. The NRI, in cooperation with Iowa State University, found that total tons of soil eroded declined in all major river basins. This remarkable reduction did not happen by chance, or by regulation. Rather, it was achieved through extraordinary efforts and voluntary cooperation at the local level.

We also offer soil data through our web soil survey, which provides basic, fundamental information to guide land use decisions. It is part of our ongoing effort to make sure the latest information is available and easily accessible over the Internet.

Measuring Success

Madam Chairman, we have made significant progress in helping people help the land by providing technical and financial support to the Nation's agricultural producers. But while we have excellent information about our program outputs, we still are working to quantify our data on the environmental outcomes of our programs.

As a result, starting in 2003, NRCS, in collaboration with other USDA and Federal agencies, initiated the Conservation Effects Assessment Project (CEAP) to scientifically assess the environmental and related outcomes from Farm Bill conservation programs at both the national and watershed scale through 2008.

The national assessment initially focuses on water quality, soil quality, and water conservation benefits from cropland programs, including the Conservation Reserve Program. Using the Natural Resources Inventory (NRI), supplemented by farmer surveys and verified by USDA computer models, CEAP will estimate national benefits from conservation practices and programs. In addition to the cropland component, the CEAP

includes wetlands, grazing lands and wildlife components in the assessment of conservation benefits from Farm Bill programs.

We believe that farmers and ranchers are making important gains in conservation on working lands. They have applied conservation systems to over 57 million acres of cropland and over 108 million acres of grazing lands, and improved 56 million acres of fish and wildlife habitat. We are excited to capture these data and more precisely measure the real results we are helping our customers achieve.

Summary

As we look ahead, it is clear that the challenges before the Nation to protect and improve water quality will require the dedication of all available resources – the skills and expertise of the NRCS staff, the contributions of volunteers, and continued collaboration with partners including local, State and Federal agencies.

I am proud of the work and the conservation ethic our people exhibit day in and day out as they go about the job of achieving conservation on the ground. Through Cooperative Conservation, we have achieved a great deal of success. We are sharply focusing our efforts and will work together with our partners to continue to make improvements to water quality. I look forward to working with you, as we move ahead in this endeavor.

This concludes my statement. I will be glad to answer any questions that Members of the Subcommittee might have.