

Pennsylvania NRCS FY 2007 Report



Greetings conservation partners and friends!

I am pleased to present this 2007 annual report to you, the shareholders in Pennsylvania's soil and water resources. The success outlined in the following pages was the result of a lot of teamwork, partnerships, and collaboration. Most of all, it was the result of private landowners making important decisions for their operations that impact their land, their county, this state and this great Nation. Here are some of the highlights:

This past year Pennsylvania received nearly \$19.4 million in Farm Bill conservation program financial assistance. These funds help farmers and landowners protect our natural resources. They support the individual farm's economics, and thereby strengthen the future of agriculture in Pennsylvania.

Soil information for the entire commonwealth was made available in digital electronic format online through the Web Soil Survey. This more than 20-year effort was completed and posted to the Web on September 27, 2007. The Web Soil Survey provides secure public access to the national soils information system, with maps and information usable for individual farms or parcels of land.

The interest in conservation and NRCS products and services is at an all time high. We are fortunate that Pennsylvania has an excellent volunteer program to help us service the requests for assistance. We had 535 volunteers who contributed 12,222 hours in Fiscal Year 2007. Volunteers are involved in a wide range of activities that include conservation planning, tree planting, clerical assistance, assisting with survey and layout of conservation practices, conservation education and assisting with RC&D projects. We are thankful that our volunteers are willing to give their time to help others and we are always looking for additional volunteers.

We have launched new initiatives for FY 2008 to help us better meet the public's need and to work more efficiently. One of these initiatives is to "Put Planning First." The emphasis is to proactively help clients develop a good conservation plan that includes core conservation practices such as residue management—especially no-till, nutrient management, buffers and cover crops. These practices are very effective in addressing soil erosion, sedimentation and water quality and when properly applied can address up to 80 percent of the resource concerns from agriculture.

A new web-based planning and inventory tool called Pennsylvania One Plan is being developed by NRCS, Department of Environmental Protection, and the State Conservation Commission. PA One Plan will allow producers to create an inventory of their operation and provide feedback on the inventory.

To help NRCS meet the growing customer demands and new conservation opportunities, we must look at ways to expand our collective capacity. We very much value the role of state and local conservation agencies, Conservation Districts, and our Pennsylvania State Technical Committee in our cooperative efforts to provide conservation assistance. We strive to further strengthen the conservation partnership with farm and environmental groups, Technical Service Providers, Resource Conservation and Development Councils, and the Pennsylvania Association of Conservation Districts.

I ask all NRCS employees and partners to remain conscious of our mission to "Help People Help the Land." The conservation work we undertake today will remain visible on the land and in our water for many years to come.

Sincerely,



Conservation Technical Assistance

With the mission of “Helping People Help the Land,” the Natural Resources Conservation Service (NRCS) provides products and services that enable people to be good stewards of the land. With our help, people are better able to conserve, maintain or improve our natural resources.

Conservation Technical Assistance (CTA) is the basic foundation for NRCS activities. Our locally-based NRCS staff works directly with farmers and others to provide technical and financial assistance to implement conservation practices. Our guiding principles are service, partnership and technical excellence.

NRCS helps landowners develop conservation plans and provides advice on recommended voluntary conservation practices. These conservation systems reduce erosion, improve soil, air and water quality, enhance fish and wildlife habitat, improve pastures, reduce upstream flooding and improve woodlands.



Gary Ballina surveys for a storage terrace in cropland.

2007 Accomplishments:

- ✦ 190,740 acres of conservation plans developed
- ✦ 86,607 acres of cropland with conservation applied to improve soil quality
- ✦ 80,220 acres of land with conservation applied to improve water quality
- ✦ 122 comprehensive nutrient management plans written
- ✦ 1,753 acres of wildlife habitat management applied
- ✦ 360 acres of wetlands created, restored or enhanced

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is a voluntary program that provides assistance to farmers who face threats to soil, water, air and related natural resources on agricultural land. Through EQIP, NRCS provides assistance to agricultural producers in a manner that will promote agricultural production and environmental quality as compatible goals, optimize environmental benefits, and help farmers meet federal, state and local environmental requirements.

EQIP identifies conservation practices to address priority resource concerns and may provide financial assistance on certain conservation practices. Incentive payments may be offered for up to three years to encourage producers to carry out management practices. Farmers may elect to use a certified Technical Service Provider for technical assistance.

EQIP Highlights for 2007:

Practice	Contracts	Obligations	Acres
Digestor	1	\$40,100.00	124.2
Cover Crop	90	\$473,406.00	6,835.3
Cropland	33	\$570,586.93	1,915.3
Grazing	63	\$3,179,747.79	4,857.1
Irrigation	8	\$475,797.00	833.7
Livestock	51	\$4,019,512.54	6,933.4
CNMP Development	8	\$21,332.00	1,163.7
Nutrient Management	24	\$196,167.40	6,678.0
Pest Management	10	\$145,697.60	535.0
Small Projects	32	\$263,904.08	1,638.0
No-till	87	\$1,200,974.80	7,905.9
Wildlife	23	\$184,226.85	511.2
TOTAL	430	\$10,771,452.99	39,930.8



Conservation Security Program

The Conservation Security Program (CSP) is a voluntary program that supports ongoing stewardship of working farmland. CSP provides financial and technical assistance to promote the conservation and improvement of soil, water, air, energy, plant and animal life and other conservation purposes on private working lands.

There were not any new signups in 2007; however, NRCS continued to service prior year contracts. Payments of \$1,789,692 were made on 335 active contracts.

Watershed	Approx. Acres	Total Contracts
Raystown	14,000	47
Lower Susquehanna-Swatara	26,000	127
Schuylkill	13,000	86
Chester Sassafras	1,300	6
French Creek	16,500	46
Monocacy	5,300	23
TOTAL	76,100	335



Conservation Reserve Program

The Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP) provide technical and financial assistance to eligible farmers and landowners to address soil, water, wildlife, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program is funded through the Commodity Credit Corporation (CCC). Both programs are administered by the Farm Service Agency, with NRCS providing technical land eligibility determinations, conservation planning, and implementation assistance. The Commonwealth of Pennsylvania and the Pennsylvania Game Commission provide additional funding for CREP.

Authorization for CRP and CREP under the 2002 Farm Bill expires 12/30/2007.

CRP/CREP Highlights for 2007:

- ✦ 951 plans developed on 22,060 acres
- ✦ 1,364 plans applied on 31,805 acres
- ✦ 20,212 acres of cropland with conservation applied to improve soil quality
- ✦ 25,890 acres of land with conservation applied to improve water quality
- ✦ 22,787 acres with conservation applied to improve fish and wildlife habitat
- ✦ 228 wetland acres created, restored, or enhanced

Wetlands Reserve Program

The Wetlands Reserve Program (WRP) is a voluntary program offering landowners the opportunity to protect, restore and enhance wetlands on their property. NRCS provides technical and financial support to help landowners with their wetland restoration efforts. This program offers landowners an opportunity to establish long-term conservation and wildlife practices and protection.

NRCS' goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program.

WRP Highlights for 2007:

- ⌘ Fiscal year allocation of \$1.03 Million
- ⌘ 6 permanent easements
- ⌘ 4 restoration-only cost-share agreements
- ⌘ 405 acres of new conservation plans written
- ⌘ 116 acres of wetlands created, restored or enhanced on prior year contracts

Each of the projects enrolled this year will create great wetland habitat for migratory and at-risk species. In particular, one Crawford County and two Adams County projects will provide traditional WRP benefits of restoring marginal cropland to wetland habitat. Three Chester County projects will restore stream and adjacent wetland habitat.



Wetland created in Columbia County.

Wildlife Habitat Incentives Program

The Wildlife Habitat Incentives Program (WHIP) develops or improves wildlife habitat on privately owned land. Through WHIP, NRCS provides both technical and financial assistance to establish and improve fish and wildlife habitat. WHIP has proven to be a highly effective and widely accepted program across the country. By targeting wildlife habitat projects on all lands and aquatic areas, WHIP provides assistance to conservation minded landowners.



Bog turtle habitat in Berks County

WHIP Highlights for 2007:

- ✦ Fiscal Year Allocation - \$224,784
- ✦ 38 accepted contracts
- ✦ 353 acres managed for upland wildlife habitat
- ✦ 65 acres of tree/shrub establishment
- ✦ 196.5 acres of conservation cover



In Berks County, this area has been planted with trees to provide ideal habitat for woodcocks.

Farm and Ranch Lands Protection Program

The Farm and Ranch Lands Protection Program (FRPP) provides matching funds to help purchase development rights to keep productive farm and rangeland in agricultural uses. Working through existing programs, NRCS partners with State, tribal, or local governments and non-governmental organizations to acquire conservation easements or other interests in land from landowners. NRCS provides up to 50 percent of the fair market easement value.

Pennsylvania NRCS received an initial allocation of nearly \$1.4 million in FY 2007 for this program. However, given the historic strength of farmland protection efforts through FRPP in Pennsylvania, an additional \$1.4 million was awarded to Pennsylvania.

FRPP Highlights for 2007:

- ⌘ Fiscal year allocation of \$2.8 Million
- ⌘ Entered Cooperative Agreements with five Partners — Pennsylvania Department of Agriculture (assisting with seven easements in six different counties), three County Agricultural Land Preservation Boards (Berks, Lebanon, and Union), one Non-Governmental Organization (Land Conservancy of Adams County)
- ⌘ 27 Easements Enrolled in FY 2007, encompassing 2,672 total acres and 2,221 acres of prime and statewide important soils
- ⌘ Over the life of the program, FRPP has invested over \$28 million towards farmland protection efforts in Pennsylvania, assisting with the purchase of almost 300 easements on 41,768 acres.
- ⌘ 79 percent of the acres protected in Pennsylvania through FRPP are either prime soils or soils of statewide importance.



Outreach

Outreach for 2007 has been very successful in Pennsylvania. At the beginning of the fiscal year, the State Outreach Plan was developed with several action items to help reach our goals of increased community participation, a more diverse workforce, and greater diversity in program participation. Here are the highlights from 2007:

✦ Pennsylvania NRCS started a major new initiative by partnering with Penn State Ag Extension educators to develop an urban gardening program with schools in the inner city of Harrisburg. In this program called Carver's Secret Garden, students aged 9 to 16 built 4ft. by 11ft. garden plots that were filled with soil and used at each school to let the students plant and harvest their crops as they learned about agriculture. What started as a pilot project has been adopted statewide.

✦ Star Junction is a diverse community in Fayette County with a population of about 900 and an average income of \$12,000 to \$25,000 per year. NRCS has been working on a wetland storm water management system project with partners that include Fayette County Conservation District, Department of Environmental Protection (DEP), and the Perry Township supervisors. To date, the aerial survey has been completed by DEP. Perry Township has signed a \$10,000 reimbursable agreement with NRCS Engineering staff to complete a hydrologic and hydraulic analysis of the proposed wetland storm water management structure. This phase is to be complete by December 2007. A Growing Greener Grant has been applied for construction and implementation by 2008.

✦ NRCS is continuing work in Johnston with the Incline Plane discharge, located downtown. The population in this diverse community is about 18,000 to 22,000 earning an average income of \$10,000 to \$30,000. This project has received \$20,000 in grant funds to do a feasibility study on the treatment and/or the removal of a foul smelling abandoned mine discharge into the Stony Creek. Phase one of the project is expected to be complete in March of 2008. The partners involved with this project are the Western Pennsylvania Conservancy, the city of Johnston, DEP, Stony Creek River Improvement Project, University of Johnston Pitt, Highland Community College, Southern Allegheny Conservancy, Cambria County Conservation District, and Somerset Conservation District.



Inner city students harvest the crops that they planted through a special gardening program called "Carver's Secret Garden"

Outreach (Cont.)

✂ Covenant Church property, located at the top of Wilkinsburg watershed in Allegheny County, has had a problem with uncontrollable strip mining causing massive erosion that is dumping on a minority community. On the local highway it poses a major hazard. The situation is being evaluated and resolved by the Allegheny County Conservation District, DEP and NRCS.

✂ NRCS is also working with Wilkinsburg School District in the construction of a Johnston School's play ground equipment and recreational facilities. The school is 100 percent minority from ages five to ten. The average income is below poverty and most residents are on public assistance.

✂ NRCS is partnering with Keystone Economic Development Corporation to develop a football field with Dale Borough for low income families' children in grades one through six.

✂ Technical assistance on redevelopment of the community's vacant lots, recreational and community buildings in Blair county, and participation on Sam's Run Nature Trail in Cambria County are just a few more of our efforts. The partners involved in these projects are the city of Altoona, Blair County Conservation District, Southern Allegheny Conservancy, the Boy Scouts, and the Lorain Borough.

✂ In the past, contact with minority farmers was based on visual determination and historical technical assistance. This year, however, the state outreach coordinator researched the minority population in the state of Pennsylvania. The results warranted a more direct effort to locate minority farmers. With the help of the National Agricultural Statistics Service, NRCS was able to target individual minority farmers by sending a direct mailing to known farmers on record. Another step taken towards achieving greater minority participation was accessing the SCIMS database and sorting out the names of known minority farmers in order to target them for outreach. From the information from both NASS and SCIMS, several direct mailings were sent out in which significant contact was made.

✂ The latest project is working with a new founded small business called US Alternative Fuels Incorporated, turning mine discharge water and algae made by these discharges into oil. The partners on board thus far with this major project are the Somerset Conservation District, Cambria County Conservation District, Southern Allegheny Conservancy, Stony Creek River Improvement Project and the Greater Johnston Watershed Association.

All outreach efforts this year have been a major success, and much of the credit goes to our partners. Without the participation of our numerous partners, a lot of these projects would never have left the ground; and with their help, we can continue with these projects into the future and break ground on new projects in efforts to reach out and benefit more of our non-traditional customers and communities.

Resource Conservation and Development

The Resource Conservation and Development (RC&D) program helps people protect and develop their economic, natural and social resources. Program objectives address improving the quality of life, including social, economic and environmental concerns; continuing prudent use of natural resources; and strengthening local citizens' ability to use available sources of assistance through the U.S. Department of Agriculture (USDA) and other Federal agency partnerships. The program is administered by NRCS.



Pennsylvania Fuels for School & Beyond

In 2007, the Pocono Northeast RC&D Council and NRCS were extremely instrumental in the founding and development of the Pennsylvania Fuels for School & Beyond program. The program is a statewide biomass energy-use initiative promoting local renewable resources to provide reliable energy for Pennsylvania schools and businesses. The program will provide many opportunities for the expansion of the forest and agricultural resources and industry within Pennsylvania which will include the utilization of low grade wood, wood waste, dedicated energy crops and agricultural products. The objectives of the program are to establish a working group of dedicated and knowledgeable individuals, organizations, and agencies to develop a statewide program that will provide education and outreach, technical and financial assistance to the public interested in and converting to biomass heating systems. Over 37 different organizations and agencies have shown support for the program through participation in meetings, discussions, and development of the program.

Weed Control/Wildlife Habitat Technical Assistance Project

All nine RC&D Councils within Pennsylvania participated in the statewide Weed Control/Wildlife Habitat Technical Assistance Project to provide technical assistance to landowners enrolled in the Conservation Reserve Enhancement Program (CREP). Through the project, RC&D Councils worked with landowners enrolled in CREP by providing information and resources on how to address noxious and invasive weeds on their property. This unique project showcased partnerships with USDA-NRCS, USDA- Farm Services Agency, County Conservation Districts, PA Dept. of Environmental Protection, PA Game Commission, PA Dept. of Conservation & Natural Resources, Penn State Cooperative Extension, Watershed Associations, Chesapeake Bay Foundation and others.

GeoTrail

Penn Soil RC&D is partnering with the Oil Region Alliance of Business, Industry and Tourism to develop and implement the Allegheny GeoTrail, an innovative new concept to increase tourism benefits in a ten county area of north western and north central Pennsylvania. The project utilizes the growing interest in a relatively new outdoor sport for people of all ages called "geocaching" to provide increased tourism benefits to ten counties that comprise the Allegheny National Forest and its gateway communities. The project is funded by a \$234,200 grant from the U.S. Forest Service.

Watershed Approach

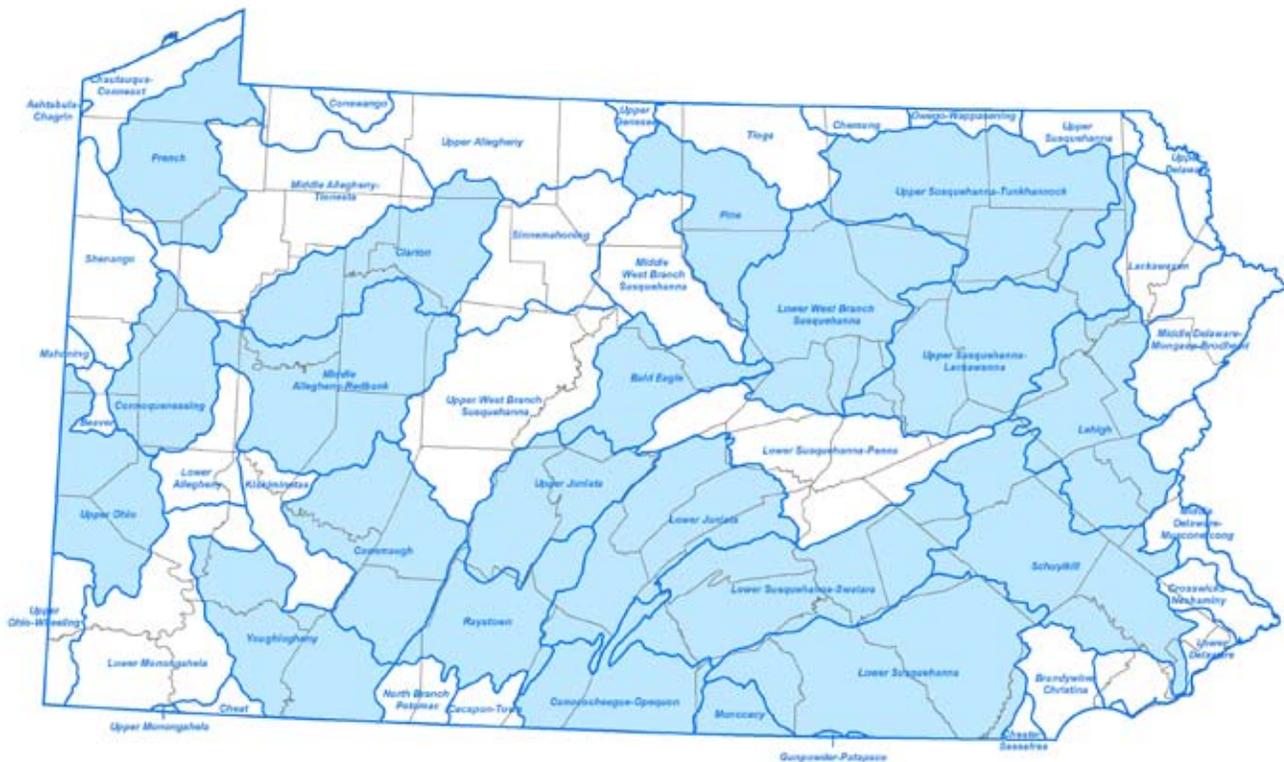
Rapid Watershed Assessments

Rapid watershed assessments are being developed in order to increase the speed and efficiency of generating information to guide conservation implementation, as well as the speed and efficiency of putting it into the hands of local decision makers. Rapid watershed assessments are intended to provide estimates of where conservation investments would best address the concerns of landowners, conservation districts and other community organizations and stakeholders.

Pennsylvania NRCS has been focusing on developing watershed profiles, which is the first component of the assessments. These profiles provide a concise description of the watershed's natural resources, resources concerns and conservation needs. They include such data as the location of the watershed in the state, roads and streams within the watershed, a physical description and properties including land use, common resource areas, impaired streams, elevation, soil information, resource concerns, census data, a history of past resource conservation in the watershed and reference data. At the present time, Pennsylvania has completed 22 watershed profiles out of the 55 8-digit watersheds in the state.

Completed Rapid Watershed Assessment Profile

(As of September 2007)



TSP Accomplishments

During FY 2007, a wide variety of contacting options were used to engage our partners, private industry and private individuals in helping NRCS provide technical assistance to our customers. In all, \$780,000 was put towards this effort with some great results. Following are some of the highlights.

Conservation District Contribution Agreement

Contribution agreements allow NRCS to non competitively contract with another organization to do 100 percent NRCS work and the contributing organization receives 50 percent of the cost to provide the technical assistance. Organizations that enter into contribution agreements are those who share the same goals with NRCS, such as Conservation Districts. In FY 2007, \$134,688 was obligated to this.

Non-Government Organization Contribution Agreements

The Chesapeake Bay Foundation entered into a contribution agreement to do CREP work. This agreement was for \$105,000 and CBF agreed to do \$210,000 worth of work to meet their 50% contribution.

DEP Contribution Agreement

There is a great need for engineering assistance across the state and DEP has a workforce of NRCS trained engineers, predominately in the Chesapeake Bay drainage area. \$107,000 was contracted yielding \$214,000 in engineering services as a part of DEP's 50 percent contribution.

EQIP Line Items

29 farmers are receiving assistance to hire TSP's through their EQIP contracts to provide them with technical services from certified TSPs.

Architects and Engineers Competitive Agreements

NRCS released a request for proposals in 2005 for companies to competitively bid to provide engineering services for NRCS, especially in peak workload times or where NRCS staff was not readily available to do the work. NRCS obligated \$234,663 towards this kind of technical assistance mostly in the northeast part of the state where many NRCS employees were busy with emergency watershed protection work this summer.

ACES - National Older Worker Career Center

Currently, there are ten ACES positions across the state providing technical assistance. To qualify for the ACES program, workers must be at least age 40.

One of the most visible projects statewide was carried out by the RC&D Councils across the state. The CREP weed control and wildlife habitat program was funded with TSP dollars to provide additional technical assistance to landusers who already hold CREP contracts who desired some additional management technical assistance for controlling weeds and providing improved wildlife habitat.

Very specific assistance was provided through an agreement with the Penn State Cooperative Extension in Adams County to provide technical services to AMA contract holders with IPM needs. Extension has the expertise in this technical area so an agreement between the two agencies was a perfect fit for TSP.

Integrated Pest Management

NRCS and Penn State entered into an agreement under which Penn State provides technical assistance to help farmers develop and implement IPM.

Earth Team

Earth Team volunteers are a vital part of the NRCS team in Pennsylvania. The Earth Team provides volunteer leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. Since 1981, we have provided an opportunity for volunteers to use their talents and abilities to assist in conserving and protecting our natural resources. They work with our employees to carry out the NRCS mission of “Helping People Help the Land.”

Pennsylvania has an excellent volunteer program. The most recent statistics show that we had 535 volunteers who contributed 12,222 hours in FY 2007. Volunteers are involved in a wide range of activities that include conservation planning, tree planting, clerical assistance, assisting with survey and layout of conservation practices, conservation education and assisting with RC&D Projects.

In addition to individual volunteers, our field office staffs have also worked with high school classes. Students have assisted in various activities to assist landowners in putting conservation practices on their land. Our Meadville Field Office works with five different school groups. Other offices also work with high school students, volunteer fire departments, local universities and others to conserve and protect soil, water and wildlife.

Our outreach activities include working with the Hispanic Association of Colleges and Universities. Two volunteers worked on a full range of field office activities including conservation planning and implementation of practices.

An article was published spotlighting Pennsylvania volunteers in the Summer issue of “Volunteer Voice.” These volunteers assisted with the conservation planning process, organized and updated files, helped with contour strip layout and attended meetings to learn more about NRCS. They were presented with certificates and awards for their assistance.

This year, the National NRCS website featured a Pennsylvania picture showing two of our volunteers as well as the field office staff in Lemont Furnace. Both volunteers were recognized during National Volunteer Week for their assistance.

We appreciate the dedication of our many Earth Team Volunteers. It’s a win-win situation with NRCS receiving assistance with the workload and our volunteers receiving valuable on-the-job training. We salute them!



Yamil Carlo helps NRCS employees with surveying.

Pennsylvania Mobile Office

Across the state, 30 NRCS employees, including soil conservationists, grazing specialists, biologists and engineers, are equipped with a “mobile office” which includes mobile desk, laptop computer, portable printer, Global Positioning System (GPS) unit and a digital camera and power inverter. The portable technology operates through the power inverter connected to their vehicle’s cigarette lighter that provides electricity.

The goals of the mobile office are to provide better service to our customers and to help our employees work more efficiently. Once our employees arrive at the farm, we want them to be able to provide the farmer with as much service and information as possible to help in conservation decision-making without having to return to the office. While employees often return to the farm to help carry out the conservation decisions, the mobile technology can result in a reduction in the number of trips back and forth to the office just to complete the initial planning work. Employees working with the mobile office can discuss resource alternatives and make decisions on the spot with the farmer and provide completed products while still at the farm.

Until recently, technology did not allow for a network connection while in the field. Many employees found the mobile concept was not going to be fully achieved until a network connection was available. Over the past year, one mobile office user has been testing a wireless network connection card. Due to the potential success and advances in wireless network technology, we plan on expanding the testing of these network cards. In the future we hope to fully integrate this wireless technology into the mobile office concept to allow our field staff to be even more productive in a mobile environment.



Nick Ramsey is among 30 NRCS employees across the state that is equipped with a mobile office.

Chesapeake Bay Happenings



The Chesapeake Bay Watershed is a large ecosystem that encompasses approximately 64,000 square miles in six states and the District of Columbia.

Although Pennsylvania doesn't border the Chesapeake Bay, more than half of the state lies within the watershed. Pennsylvania contains two major rivers– the Susquehanna, with 21,000 square miles and the Potomac, with 1,600 square miles. Together, they total 40% of the entire Chesapeake Bay watershed.

Pennsylvania NRCS is proud to partner with other agencies and groups such as the Chesapeake Bay Foundation, the Pennsylvania Association of Conservation Districts, the Pennsylvania Department of Agriculture and others to help people help the bay. In FY 2007, NRCS in Pennsylvania planned nearly 146,000 acres and helped landowners implement conservation practices, contributing to meeting Chesapeake Bay water quality goals and helping improve wildlife habitat.

Pennsylvania NRCS provides technical assistance to landowners in Pennsylvania's Conservation Reserve Enhancement Program (CREP). In the 20 counties that make up the original Chesapeake Bay watershed CREP, NRCS provides help in planning and implementing riparian forest buffers. In the remaining 23 counties that are eligible for the Chesapeake Bay CREP in northern and north-central Pennsylvania, NRCS works with landowners to plan and install practices such as native and introduced grasses and riparian forest buffers.

Implementation of Comprehensive Nutrient Management Plans (CNMPs) is an NRCS agency and EQIP program priority. Pennsylvania's portion of the Chesapeake Bay has many livestock operations, most of them small to medium size family operations. NRCS has continued to help these farmers develop complete management plans for their operations and to provide technical and financial help in order to implement the practices in the plan, using a variety of programs including NRCS' EQIP program, as well as state and local financial assistance programs.

In addition to helping farmers implement a variety of traditional "permanent" conservation practices such as grass waterways, grazing systems, and waste storage facilities, NRCS in Pennsylvania has put more emphasis in its EQIP program on annual conservation practices that promote better cropland management, especially conversion to continuous no-till and cover crops after harvest on low-residue crops such as corn silage. These two EQIP program options were very popular with farmers in 2007 and are expected to attract growing interest in 2008.

FY 2007 Chesapeake Bay Accomplishments:

- ✂ 48 CNMPs applied
- ✂ 4,472 acres of conservation buffers installed
- ✂ 364 acres of wetlands created, restored or enhanced
- ✂ Conservation applied to 96,537 acres to improve water quality
- ✂ Conservation applied to 1,918 acres to improve irrigation efficiency
- ✂ Conservation applied to 20,656 acres to improve fish and wildlife habitat
- ✂ Conservation applied to 40,311 acres of grazing and forest land to protect and improve the resource basis

Soils

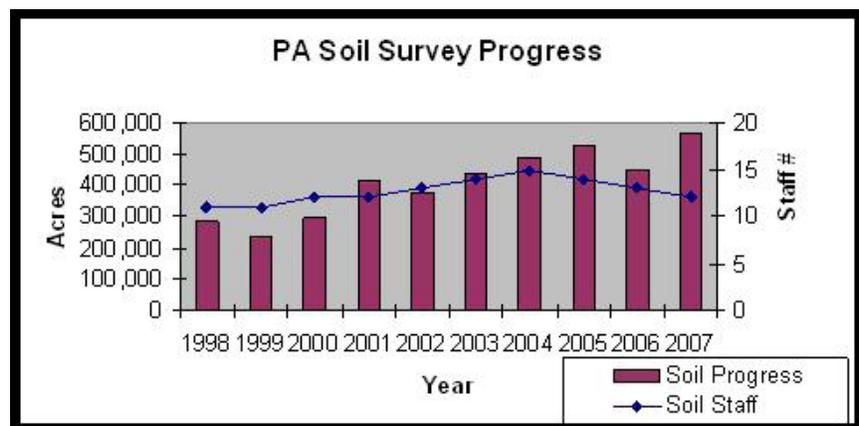
Soil Scientists provided technical assistance, training and education throughout the year. Technical assistance included wetland delineations for USDA program participants, wetland restoration project soil investigations and on site mapping, soil investigations for manure storage projects and buffers, soil investigations for cultural resources, completing county land evaluations for farmland preservation, and assisting more than 1,000 customers with the use and interpretation of soil survey information. Example training and education projects included working with pasture groups and Project Grass Conferences by incorporating soil and soil quality education, soil training at no-till field days, multi-county and State Envirothon, soil displays at PA-One Call Days, soil science with Ag in the Classroom, soil properties for irrigation, and training more than 500 people in the use of the Web Soil Survey.

In 2007, soil information for the entire Commonwealth of Pennsylvania was made available through the Web Soil Survey thanks to the cooperative efforts led by NRCS that included Pennsylvania State University, Pennsylvania Department of Environmental Protection and many local governments and agencies. The more than 20-year effort was completed and posted to the Web Soil Survey on September 27, 2007. There are currently 1.3 million soil polygons

in Pennsylvania of 7,156 different soil types. In addition, soil updating was conducted on more than 560,000 acres in parts of Potter, Erie, Chester, Montgomery, Northampton, Indiana, Susquehanna, Beaver, Lawrence, Jefferson, Armstrong and Butler Counties.

Soil Survey information is highly used for state, federal and local programs that include conservation planning and application, stormwater management, nutrient management, farmland preservation, watershed planning and community planning to help people make the right choices to improve productivity, protect the environment and conserve natural resources. Pennsylvania is one of the highest states in Web Soil Survey use and the demand for soil survey information from landowners and agencies is rapidly increasing as environmental and productivity issues continue to increase. The easy to use Web Soil Survey can be accessed at <http://soils.usda.gov>.

Technical Assistance in the use and application of Soil Survey information for state, local and federal programs was conducted throughout the state during Fiscal Year 2007. Technical assistance helped people make the right decisions about the land and lead to increased use of the Web Soil Survey, with Pennsylvania being one of the top states in its use.



Engineering

Emergency Watershed Protection Program

NRCS Emergency Watershed Protection (EWP) Program benefits northeastern Pennsylvania residents by stabilizing critically eroding stream banks caused by the June 2006 flood event.

EWP is designed to relieve imminent hazards to life and property caused by a sudden impairment of the watershed such as flooding and erosion. Assistance is available for emergency work that presents a clear threat to life or property (homes, businesses or utilities). NRCS can fund up to 75 percent of the construction cost. Each project must have a local unit of government as a sponsor. The sponsors must obtain land rights from property owners, agree to be responsible for maintenance of the project for ten years and obtain permits.

Sponsors are also responsible for 25 percent of the construction costs. PA DEP Bureau of Waterways Engineering has provided \$1.35M in funding toward the non-federal share. Sullivan, Susquehanna, Lackawanna, Wyoming, and Columbia counties have also contributed \$525,000 for projects in their counties. NRCS is contributing up to \$6M in construction costs.

In February and March 2007, teams were assembled to visit identified sites to do Damage Survey Reports. 150 sites in 21 counties were identified as eligible. The bulk of the projects are in Bradford, Columbia, Lackawanna, Luzerne, Susquehanna, Wayne and Wyoming Counties. EWP work must reduce threats to life and property. It must also be economically, socially and environmentally defensible and sound from an engineering perspective.

Projects are bid through www.fbo.gov. Construction began in April 2007 and will continue into 2008. There will be about 110 construction contracts. Many local contractors are doing the work in their community.



Severely eroded stream bank from the June 2006 flood threatened homes and businesses in Luzerne Borough, Luzerne County. The staked rock wall installed along Toby's Creek stabilizes the stream bank.

Engineering

PL-566 Project Nears Completion

The Kalp Acid Mine Drainage Abatement Project located in Saltlick Township, Fayette County, Pennsylvania is nearing completion. The \$1,757,567.00 project will remove 45 percent of the mine drainage pollution load from Indian Creek, restore 10.5 miles of trout fishery to Indian Creek and provide financial, social, aesthetic and recreational benefits to this economically depressed community. Final inspection of the project is expected in December.

The Mountain Watershed Association is the primary sponsor for this project. Additional sponsors include the Fayette County Commissioners and the Fayette Conservation District. The Pennsylvania Department of Environmental Protection's Bureau of Abandoned Mine Reclamation has also been a key technical and financial partner in the project.

The project is funded by the NRCS administered PL-566 Small Watershed Program and the Pennsylvania Growing Greener Program, along with many grants from local, state and national organizations.

The project has been phased over three years. The first phase was a directional drilling project that drilled horizontally into the Melcroft deep mine and relocated the Kalp discharge to a point where it could be treated. The second phase of the project was a two-year construction project to build the passive treatment system.

The Kalp discharge is one of ten discharges identified by NRCS in the Indian Creek Watershed Plan and Environmental Assessment as major pollution sources to Indian Creek and its tributaries. The acid mine water will be treated by a series of upflow and downflow wetlands and settling ponds. Mitigation wetlands totaling 3.3 acres were also constructed on the site.

The Kalp project is the third project to be completed in the watershed. Design of the Melcroft and Gallentine sites is currently in progress.



Engineering

NRCS PL 83-566 Watershed Program helps flooded residents

The Neshaminy Creek Watershed Project in Bucks County, Pennsylvania is protecting residents from the ravages of flooding. Participating homeowners along Neshaminy Creek are using the program to help them leave the floodplain completely or to protect their homes from the persistent flooding that occurs when Neshaminy Creek rises out of its banks. The program is completely voluntary and is being implemented by the County of Bucks with financial and technical assistance from NRCS. The Bucks County Conservation District also sponsors the project.

It is estimated that \$1.20 in flood damage reduction is achieved for each dollar spent, ultimately saving taxpayers money in disaster relief and clean-up costs, while relieving emergency workers during flood events. The greatest benefit is the improved public health and safety afforded to each of the local communities.

Residents of the flood plain have the opportunity to sell their house to the county at fair market value, have the house elevated above the 100-year flood or protect their basement utilities from flooding, depending on the depth and frequency of flooding expected. About 350 homes are eligible to participate. Funding depends on annual appropriations and to date an estimated \$15 million has been allocated to the project, including nearly \$2 million in local funds. About 100 households have been or are currently being assisted. Another 40 or so have been assisted through other flood mitigation programs that were available after the devastating flood associated with Tropical Storm Floyd in 1999.

Although some funds remain, the county is hoping that funding continues this year and future years until all interested and eligible residents have an opportunity to participate. Future plans include assistance to non-residential owners as well. The project is funded under the Watershed Protection and Flood Prevention Act (Public Law 83-566) which is administered by NRCS. Previously, the NRCS Watershed Program was used to relieve flooding in other parts of the watershed with the construction of eight flood control dams, including the locally popular multi-purpose dams at Core Creek Park and Peace Valley Park.



House elevated above 100-year flood.

Grazing

During this past year in Pennsylvania, the five Regional Grazing Specialists and the State Grassland Specialist provided NRCS employees, grazing land owners/managers/producers and cooperating agency employees with the equivalent of 15,000 hours of instruction through formal trainings and meetings. Trainings ranged from basic grassland management techniques to inventorying and designing water systems to serve grazing livestock in the pasture areas. A Nutritional Balancing (NUTBAL) workshop was held for producers that enrolled in CSP in the Monocacy Watershed to learn how to run the NUTBAL program on their operations maximizing their feeding efficiencies with livestock on pastures. Pennsylvania hosted a basic training to interested participants on prescribed burning at the Rock Springs Research Farm in Centre County. NRCS employees from New Hampshire attended the training.

Pennsylvania NRCS maintains 134 demonstration projects on various types of operations. These operations range from typical dairy, beef, sheep and horse operations to more time sensitive organic operations that include, but are not limited to, grazing of different types of poultry and swine.

Public awareness of the benefits of grazing are presented at many workshops, seminars, conferences, pasture walks and grazing events held across the state each year. In FY 2007, NRCS participated in 120 organized grazing functions reaching approximately 17,227 interested people. We produced 30 videos, calendars, brochures, pamphlets, as well as other media. Magazine and newspapers published 33 articles on grazing and grassland management and seven media events were held highlighting grazing work in Pennsylvania. Through all of this activity, newspaper and magazine circulations reached 6,466,789 people and 6,000,250 were reached through media events.

Pennsylvania was one of five protocol-testing states for the expanded data collection through the Pastureland Natural Resources Inventory (NRI). Primary Sample Units (PSUs) were selected across Pennsylvania and data was collected at 20 different points to test different processes for collecting data. Many factors were evaluated throughout the process of collecting the data for accuracy of information and time efficiency.



Initiatives for the Future

To help us better meet the public's need and to work more efficiently, Pennsylvania NRCS is implementing the following initiatives for 2008.

"Put Planning First"

The emphasis of "Put Planning First" is to proactively help clients develop a good conservation plan that includes core conservation practices. This emphasis on up-front conservation planning within NRCS will correspond in a timely fashion with other programs and procedures that reference the need for a current conservation plan. It is imperative that planning assistance be provided in a proactive manner to prepare land users for successful participation in conservation programs such as EQIP. Our ability to assist clients with implementation of their program contracts in a timely and efficient way will be greatly enhanced by starting now to develop action orientated conservation plans. In 2008, priority status will be awarded to producers with current conservation plans.



Core Conservation Practices

Core conservation practices such as no-till farming, nutrient management, cover crop and conservation buffers can reduce the loss of nitrogen, phosphorus, and sediment from cropland while maintaining or increasing crop profitability. Implementing core conservation practices also can play an important role in carbon sequestration can address 80 percent of the pressing environmental issues facing farmers and the Chesapeake Bay.

Pennsylvania One Plan

Pennsylvania One Plan is a web-based planning and inventory tool being developed by NRCS, PA Department of Environmental Protection and the State Conservation Commission. The concept behind the PA One Plan is to allow landowners and producers to create an inventory of their operation and provide feedback based on that inventory. This inventory is created using an easy to use web-based tool. Users can locate the operation through a GIS interface that will allow them to break the operation into different land units. Once each land unit has been described, the landowner/producer can start creating the inventory of that land unit. After creating an inventory of a land unit the user can be made aware of possible resource concerns that may impact that land unit. Once the inventory process is completed the user is shown possible solutions to the resource concerns that were identified as well as other best management practices. The user can then view additional information about these BMP's. If the user chooses they may have the information transmitted to the local NRCS or conservation district office. The use of PA One Plan is totally voluntary. It is being designed to allow users to evaluate their situation and request assistance or additional information if they wish.



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