



**United States Department of Agriculture**  
Natural Resources Conservation Service

**2008**



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**Thomas Drewes**  
State Conservationist

NRCS promotes productive lands and a healthy environment through technical and financial assistance for private landowners. NRCS technical experts work with conservation partners to support productive soils, clean and abundant water, healthy plant and animal communities, clean air, an adequate energy supply, and working farm lands to sustain the Garden State community. For more about NRCS activities in New Jersey, visit

[www.nj.nrcs.usda.gov](http://www.nj.nrcs.usda.gov).

### Outreach in New Jersey

NRCS works cooperatively with agencies, associations and non-profits who share our mission. By working together we are multiplying the numbers we are reaching and maximizing the expertise of our personnel. NRCS employees also take advantage of outreach and education opportunities throughout the State to extend our services and programs to the widest possible audience. Our employees participate in community events and fairs, agricultural and environmental conferences, university career fairs, Future Farmers of America land judging, the New Jersey Envirothon, and project site demonstrations. In addition, we offer technical training at workshops, seminars and university courses throughout the year to fulfill our agency mission of helping people help the land. NRCS employees receive ongoing training to ensure that every qualified applicant is properly served. In 2008, 20% of applications received by NRCS Service Centers for technical and financial assistance were from beginning or limited resource farmers.

### NRCS Website

The New Jersey NRCS website is maintained as a resource for our customers, our partners and our staff. It is kept up to date with current program information, the electronic Field Office Technical Guide (eFOTG), NRCS services and contact information.

According to NRCS Webtrends, a total of 220,507 visits were made to the NJ NRCS website by 120,004 visitors, with an average of 1.84 visits per visitor. Overall, there were 602 visits per day to our website in 2008.

## **A Message from the State Conservationist**

The Farm Bill passed by Congress in May 2008 provides new opportunities for NRCS in New Jersey. More emphasis is being placed on specialty crops, organic production, and energy conservation, all of which are important to the Garden State. Authorized funding increased nationally by \$1 billion.

Following the 2002 Farm Bill rules this past year, NRCS funded approximately half of the applications we received. Our staff of 69 employees and 8 partners worked with individual land managers to develop over 140 contracts with a total value of \$15 million to implement conservation measures on private lands. We also provided technical support to our many cooperators who applied 3,557 practices (see pages 4 and 5). These practices support improved water quality, improved soil quality, healthy plant and animal communities, clean air and energy conservation.



NRCS worked closely with our partner agencies on many outreach activities in 2008. Our focus has been to advocate the importance of managing soil functions. With concern for global warming increasing, we have taken the initiative to educate our partners about the importance of carbon sequestration and building up organic matter in soil as a win-win solution for farmers and the public. We plan to jointly sponsor conferences with others to promote more soil health practices, such as no-till and cover crop.

We assisted the NJ Association of Conservation Districts in the development of a portable soil tunnel to help introduce the role of soils management and impacts on other natural resources to a wider and more diverse audience. This tunnel and accompanying educational materials will be presented at schools, fairs and public events to explain the benefits of building up organic matter in the soil. The ability of soil to absorb rainfall and thereby allow for plant growth, ground water recharge to streams, and a reduced need for irrigation (creating an energy cost savings) and the air quality benefits provided through carbon sequestration and cooling effects will be presented to audiences of all ages.

There is a growing public concern to be more active in the global warming issue and in developing mitigation and adaption strategies. Energy is evolving as a resource concern and an opportunity for NRCS to encourage adoption of practices involving energy conservation, carbon sequestration, biofuel production and similar practices. We are working to transition our programs to meet these needs.

Thomas Drewes  
State Conservationist  
February 2009

## Conservation Technical Assistance (CTA)

Natural resource conservation issues of State and national concern are being addressed at the local level through conservation planning performed by NRCS soil conservationists and specialists under the Conservation Technical Assistance (CTA) Program. Our primary partners in the delivery of conservation technical assistance are the fifteen Soil Conservation Districts and the NJ Association of Conservation Districts. NRCS also works effectively with the New Jersey Department of Agriculture, Rutgers University, other state and federal agencies.



### Through CTA in New Jersey in 2008, NRCS:

- Prepared 405 conservation plans for land managers in New Jersey.
- Worked with Rutgers Cooperative Extension Service to develop training for NRCS staff and Cooperative Extension staff for soil health and alternative agriculture issues.



- Soil scientists and engineers provided training regarding the NJ Soil Erosion and Sediment Control law to 50 people in cooperation with New Jersey Department of Agriculture State Soil Conservation Committee.
  - GIS Specialists presented LiDAR data analysis using ArcGIS9.2 to 150 people at the NJ Geospatial Forum in June.
  - Presented a poster on "Understanding the Methods Used in Mapping NRCS SSURGO Soils" at the Mid Atlantic Chapter of the Urban and Regional Information Systems Association to 250 members. (Note: SSURGO is *Soil Survey Geographic Database*)
  - Engineering staff provided assistance to sponsors addressing rehabilitation needs of the tidegate structure and embankment of the Mill Creek Dike, Cumberland County.
  - Assisted with preparation and presentation of NJ Envirothon with over 200 students participating. About 80 students received soils training from NRCS staff as part of the north and central NJ training prior to the May event.
- Planned Plant Materials Center pollinator research activities with Rutgers University entomologist.
  - Worked with Rutgers University turf grass scientist on native grasses as biofuels on marginal lands.
  - Provided wetland plant ID training in three separate Rutgers Continuing Education workshops to 75 individuals.
  - Presented NJ Chapter 199 training on soils requirements for septic installation in cooperation with Rutgers Continuing Education.
  - Explored opportunities for more cooperation between NRCS and federal Defense Department military facilities in NJ with NJDEP and US Department of Defense officials.
  - Provided training to potential volunteers and employees on invasive exotic plant control at a workshop in Essex County's Weequahic Park to 72 people in January 2008.
  - Soil scientists served as judges for the annual FFA land judging contest in New Jersey.

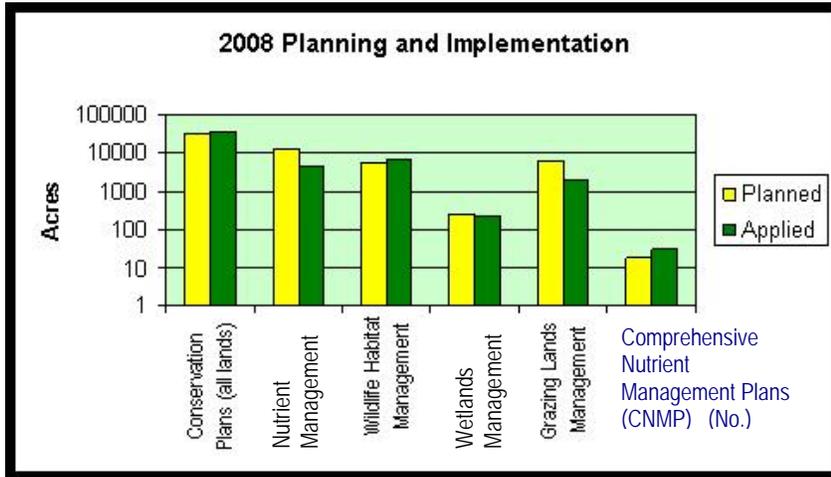


# Conservation Accomplishments – 2008

NRCS Soil Conservationists can help private landowners and agricultural producers identify resource needs on the properties they manage. They recommend appropriate practices to address them, like nutrient management systems, erosion control systems, at-risk species habitat management, wetlands restoration, grazing lands management, or the development of CNMPs (Comprehensive Nutrient Management Plans).



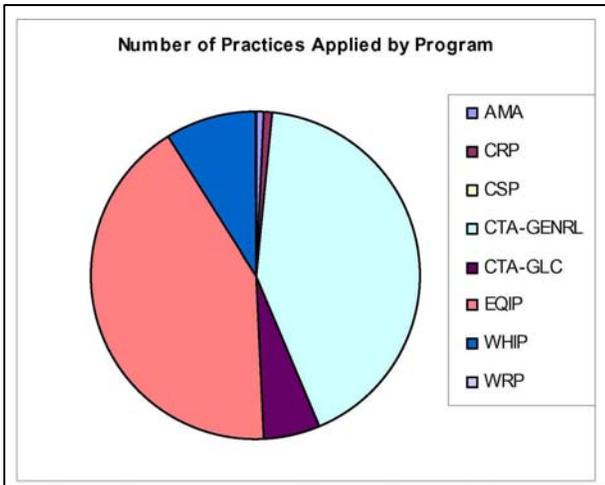
Farm in Sussex County



The practices that the land manager agrees to implement are recorded in a written document called a *Conservation Plan*. Conservation planning is done under the Conservation Technical Assistance (CTA) program. Most requests for conservation planning are received from private landowners and land managers who are applying for current year Farm Bill programs.

## 2008 Planning and Implementation by County

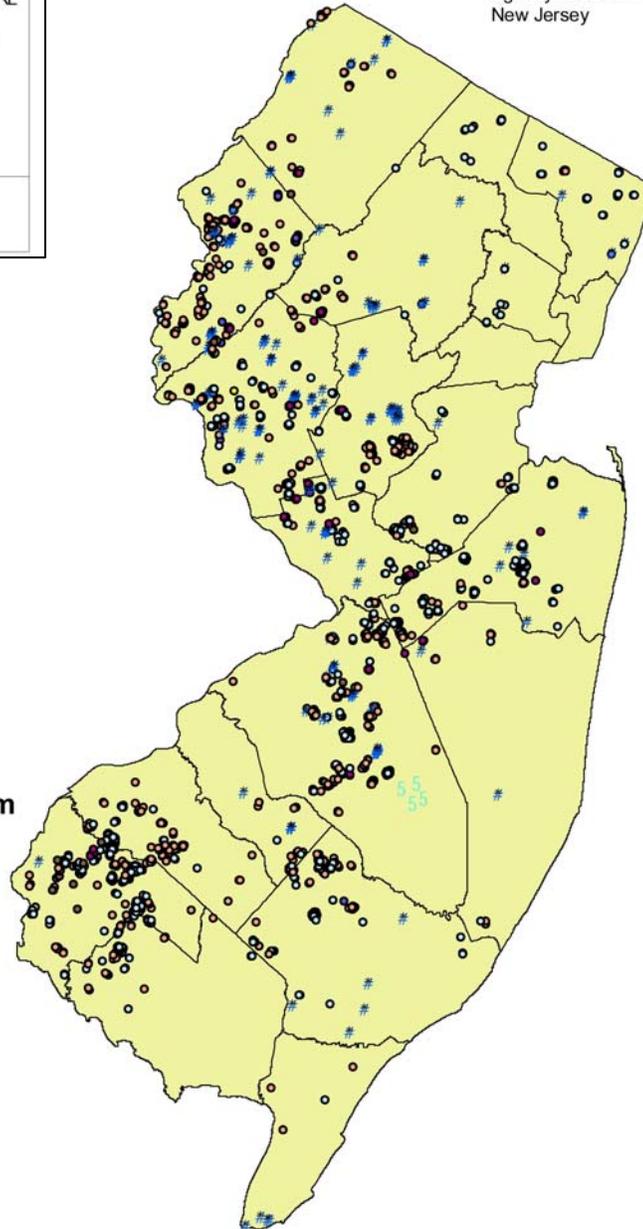
County	Conservation Plans (all lands)		Nutrient Management		Wildlife Habitat Management		Wetlands Restoration		Grazing Lands Management		CNMP (No)		
	Acres	Planned	Applied	Planned	Applied	Planned	Applied	Planned	Applied	Planned	Applied		
Atlantic		1,744	2,128	2,282	37	28	34			2	1		1
Bergen		42	306	8	7	28	23			4			
Burlington		2,774	4,306	1,359	1,462	2	234	233	233	32	169	1	2
Camden		397	629	517	145		4						1
Cape May		178	180	34	5								
Cumberland		2,640	1,922	888	171	217	2	4		16	11		1
Essex		1,875	1,836			956	49						
Gloucester		4,157	1,844		234		1			26	37		
Hunterdon		5,482	2,362	3,352	102	2,640	772	5	7	3,211	742	4	9
Mercer		1,170	1,520	767	243	105	255			739	275		2
Middlesex		356	3,307	153	173		1,112				4		
Monmouth		1,205	2,185	494	22	149	159			204	43	1	1
Morris		769	1,045	187		68	569			305	96	1	1
Ocean		637	526	86	7		8			60	15	1	
Passaic		736	137	65	3	111	19	2		19			
Salem		4,307	5,250	80	76	95	180			106	157	1	4
Somerset		1,726	4,907	1,165	1,282	329	2,636			507	74	1	
Sussex		777	424	119	120	27	87	6		455	86	1	2
Warren		2,060	2,117	761	624	695	403	8		791	240	6	5
<b>Totals</b>		<b>33,031</b>	<b>36,931</b>	<b>12,317</b>	<b>4,712</b>	<b>5,450</b>	<b>6,563</b>	<b>257</b>	<b>240</b>	<b>6,490</b>	<b>1,924</b>	<b>17</b>	<b>29</b>



Program	Number of Practices Applied
AMA	28
CRP	30
CSP	5
CTA-GENRL	1485
CTA-GLC	201
EQIP	1491
WHIP	313
WRP	4
<b>Total</b>	<b>3557</b>

## Fiscal Year 2008 All Practices Applied by Program

Agency: USDA-NRCS  
New Jersey



### FY2008 Practices by Program

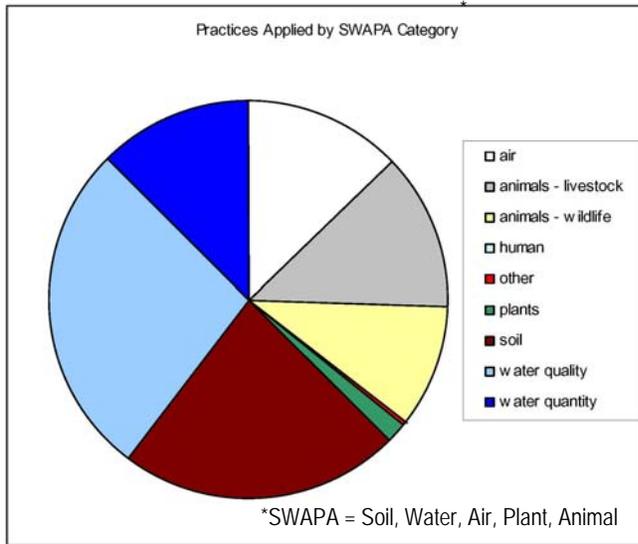
- ◻ AMA - Agricultural Management Assistance
- ◻ CRP - Conservation Reserve Program (administered by Farm Service Agency)
- ◻ CSP - Conservation Security Program
- ◻ CTA - GENRL Conservation Technical Assistance (General)
- ◻ CTA-GLC - Grazing Lands Conservation
- ◻ EQIP - Environmental Quality Incentives Program
- # WHIP - Wildlife Habitat Incentives Program
- 5 WRP - Wetlands Reserve Program

New Jersey

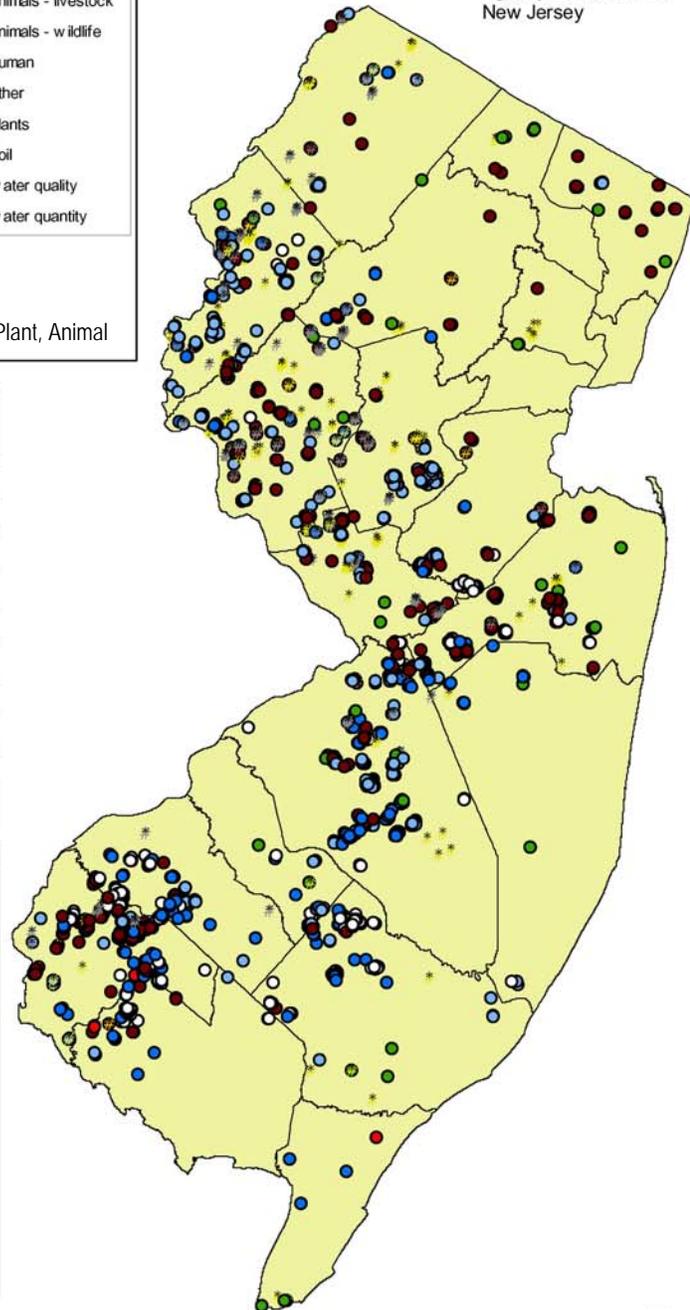


Conservation practices are being implemented in New Jersey through the Conservation Technical Assistance (CTA) program and Farm Bill programs (AMA, CRP, CSP, EQIP, WHIP, WRP).

Fiscal Year 2008  
**All Practices Applied  
 by Resource Concern**



Agency: USDA-NRCS  
 New Jersey



Resource Concern	Practices Applied
air	452
animals - livestock	458
animals - wildlife	354
human	1
other	9
plants	64
soil	806
water quality	972
water quantity	441
<b>Total</b>	<b>3557</b>



Resource concerns in New Jersey are being addressed through the Conservation Technical Assistance (CTA) program and Farm Bill programs (AMA, CRP, CSP, EQIP, WHIP, WRP)

## Plant Materials

[www.nj.nrcs.usda.gov/plants.html](http://www.nj.nrcs.usda.gov/plants.html)

The Cape May Plant Materials Center (PMC), administered by NRCS in New Jersey, develops plant technologies for a nine state region extending from Cape Cod, Massachusetts to Wilmington, North Carolina. The Plant Materials Program collects, tests and selects plants to solve resource problems. Plant releases of successful cultivars are made available to the commercial seed and nursery industry for propagation and sale to the general public. These plant materials are used for multiple purposes, such as the re-vegetation of difficult sites, water and soil quality improvement, and wildlife habitat enhancement.

### Switchgrass for Biomass Production

The PMC provided switchgrass germplasm to Rutgers University and the USDA-ARS (Agricultural Research Service), for the evaluation for biofuel production. The PMC maintains four different strains of switchgrass developed through the years for different purposes. With renewed interest in using switchgrass as an alternative energy source, we've received requests from researchers for these various switchgrass lines. Several of our germplasm entries rank fairly high in biomass production when compared with lines from other areas of the country.



### Evaluation of Establishment Success of a Cool Season, Native Grass for Restoration

Crinkled hairgrass, *Deschampsia flexuosa*, is a native cool season grass that occurs in the coastal plain from New Jersey to Cape Cod, Massachusetts. An ecotype from Massachusetts is being grown by a small commercial seed producer in Oregon. The Cape May PMC will host an evaluation site for determining the best rate, method and timing of establishing this grass species. Plots were installed in early October with a second seeding scheduled for Spring 2009.

### Acadia National Park Project



In June 2008 a 5-year Acadia National Park project (Maine) was completed. A campground was redesigned to limit foot access in sensitive areas and to ameliorate soil compaction. All the revegetation efforts were accomplished with plants grown by the Cape May PMC with seed collected within the Park boundaries. Species propagated included winterberry holly, wild raisin, fly honeysuckle, bayberry, pasture rose, red maple, paper birch, striped maple, mountain ash, big-leaf aster, flat-topped aster, and Canada goldenrod. Over 18,000 plants were produced by the Cape May PMC for this effort.

### Army Corps-Jamaica Bay Marsh Islands Restoration

The Cape May PMC is working to develop cost effective strategies of establishing Smooth cordgrass (*Spartina alterniflora*) as a component of the Jamaica Bay Islands Marsh Restoration Project. After evaluating a smooth cordgrass seeding for two years (2007-2008) we determined that a successful seeding of smooth cordgrass is possible if the site is somewhat protected from wave energy, particularly in environments with a large tidal fluctuations. Project partners include the National Park Service and US Army Corps of Engineers.



Project priorities of the Cape May PMC include:

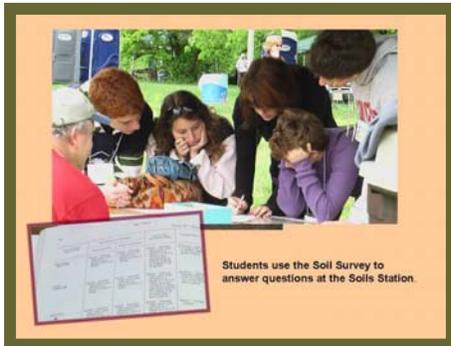
- Developing local ecotypes of native plants for USDA Conservation Programs
- Selecting, testing, and releasing plants to stabilize coastal areas such as dunes, shorelines, and streambanks
- "How to" guidance on revegetation of disturbed sites such as landfills, mined lands, and Brownfields
- Evaluating the effectiveness of native warm season grasses to sequester soil carbon

## Soil Survey

[www.nj.nrcs.usda.gov/technical/soils](http://www.nj.nrcs.usda.gov/technical/soils)

The Natural Resources Conservation Service (NRCS) is the lead agency responsible for the soil survey activities of the U.S. Department of Agriculture. NRCS leads and coordinates the National Cooperative Soil Survey (NCSS), which is an effort of Federal State and Local agencies, universities, professional societies and non profit organizations to deliver science-based soil information worldwide.

### Understanding and Using the Web Soil Survey



In 2007 NRCS organized a group to promote the use of soil survey information in natural resources management. The New Jersey Department of Agriculture, Rutgers University, New Jersey Institute of Technology, North Jersey Resource Conservation and Development, Delaware River Basin Commission, and the New Jersey Water Supply Authority participate in this group with NRCS. In 2008 a presentation for general audiences on understanding and using soil survey products and data was developed. This presentation is available to groups who could benefit from a basic understanding of soil surveys, like realtors, environmental commissions, planning boards, schools, and others.

NRCS Soil Scientists provided training in several venues. Over 130 high school students received training in basic soil science and how to use the soil survey in preparation for the 2008 Envirothon; over 50 foresters attended a presentation on the web soil survey in January 2008 as part of a program sponsored by the Northeast Association of Foresters; and over 100 land appraisers attended a farmland preservation program workshop sponsored by the NJ State Agricultural Development Committee (SADC), June 2008.



State Conservationist  
Tom Drewes at Essex County  
Soil Survey Introduction Workshop

### Also in 2008

- o Essex County Soil Survey was published and limited number of printed copies and CDs were made available to county officials.
- o NJ National Cooperative Soil Survey (NCSS) Work Planning Conference was held Sept. 2008 in Somerset.
- o *Dig It! The Secrets of Soil* opened July 19, 2008, at the Smithsonian Natural History Museum. The profile of Downer soil that represents New Jersey in the exhibition was constructed by NJ NRCS soil scientists.



Rockaway Soil Profile

Access this information and more from the NJ NRCS website at [www.nj.nrcs.usda.gov](http://www.nj.nrcs.usda.gov), linking to the "Information about Soils" from the right side of the page.

### Soil Survey Products

**Web Soil Survey** <http://websoilsurvey.nrcs.usda.gov/app/> The site is updated and maintained as the single authoritative source of soil survey information. Soils maps, interpretations and a natural color photo background are available and can be utilized by anyone with a computer and Internet access. NRCS soil scientists have produced web soil surveys for twenty of New Jersey's twenty-one counties.

**Soils Data Mart** <http://soildatamart.nrcs.usda.gov/> provides the most current data available in GIS format. GIS system users can download county data with soils lines, attribute data, and meta data for 20 NJ counties, as well as soil reports for map units they select.

**Historical Manuscripts and CD** Prior to the introduction of the Web Soil Survey in 2005, soil survey manuscripts were published in print for distribution. These documents are still available in limited quantities through NRCS Service Centers and can be downloaded from the Soil Data Mart. All historical data is superseded by data provided on the Web Soil Survey and Soil Data Mart.

## GIS - Geographic Information System

NRCS participated in the NJ Elevation Task Force to facilitate LiDAR (light detection and ranging) data collection for Cape May, Cumberland and Salem Counties. Task Force partners included New Jersey Department of Environmental Protection who received funding from National Oceanic and Atmospheric Administration and New Jersey State Police for the project, New Jersey Office of Homeland Security and Preparedness, USDA Natural Resources Conservation Service, U.S. Army Corps of Engineers Philadelphia District, the U.S. Environmental Protection Agency Region II, and the U.S. Geological Survey (USGS).



NRCS also worked with state, federal, and local partners to acquire "leaf-off" aerial digital imagery. This was a unique project, marking the first time that New Jersey aerial photography was collected entirely without film. The resulting digital data acquired in 2007 will give a much sharper photographic image and is expected to be available for NRCS service center use in 2009.

## NRI - National Resource Inventory

NRCS conducts the National Resource Inventory (NRI) of private lands in the United States. This inventory is updated annually and provides information on land use trends over time, farming methods, and the condition of our soils and water. Random areas called segments are 109 acres and contain one to three spot locations (points), which are assessed annually. The results of the 2008 NRI survey will be available in late 2009 on the national NRI website, linked from the New Jersey NRCS website at <http://www.nj.nrcs.usda.gov/technical/nri/>.

In 2008, 376 segments and 1016 points were reviewed by NRCS field staff. Of these, 201 segments were core segments (reviewed every year), 134 were rotation segments (reviewed every 5 years) and 41 were completely new rotations. In addition, the East Remote Sensing Lab reviewed data from 229 segments in New Jersey, for a total of 605 segments and 1,634 points.

## Watershed Programs

[www.nj.nrcs.usda.gov/programs/watersheds](http://www.nj.nrcs.usda.gov/programs/watersheds)

### Watershed and RC&D Project Dams

Twenty dams were constructed in New Jersey between 1959 and 1986 to control flooding, reduce sedimentation or to provide recreation benefits through the Watershed Protection and Resource Conservation & Development (RC&D) programs. NRCS has long-term operation and maintenance (O&M) agreements with local project sponsors to ensure that the dams remain in a safe and serviceable condition.



In FY 2008, NRCS engineers assisted local sponsors in the inspection of eighteen of the twenty dams, with the remaining two being inspected by sponsor staff. These were found to be in good condition, but two were identified as requiring some maintenance work to remain in compliance with their O&M agreement. In addition to O&M inspections, hazard class assessments were updated for four dams last year. Dams are classified by NRCS and the State as high-, significant- or low-hazard, based on downstream impacts if the dam were to fail. These four were found to still be correctly classified. To date only one project dam has been reclassified due to development within the downstream flood plain. Upgrades are necessary for that dam to meet current safety requirements; the sponsor has applied for assistance through the NRCS Watershed Rehabilitation Program.

## Emergency Watershed Protection (EWP) in Bergen County

New Jersey received an allocation of \$300,000 in financial assistance through the Emergency Watershed Protection Program in June 2008 to address damages sustained on April 15, 2007 after a Nor'Easter struck Bergen County. The storm caused severe streambank erosion, impacting utility services, public open space and residential properties in the County. Due to a lack of program funding at the time of the storm, eligible recovery projects were placed on a wait-list for funding. When funds became available following a supplemental Congressional appropriation, damaged areas were reassessed to determine continued eligibility in Ridgewood and Washington Township.

An agreement was signed with Ridgewood to restore a 250 foot reach of the Saddle River that had been eroded, exposing and threatening a water main and sewer line. Work on this project was expected to be completed in December of 2008. Although there were significant damages in Washington Township, local sponsorship and funding issues prevented an agreement from being signed.



## Middlesex County – Manalapan-Matchaponix Brook Project Development

NRCS initiated a watershed analysis of flood damages that occurred in 2004 and 2005 and will develop preliminary alternatives for mitigation for the South Central Middlesex County Flood Control Commission. Anticipated completion date is June 2009.

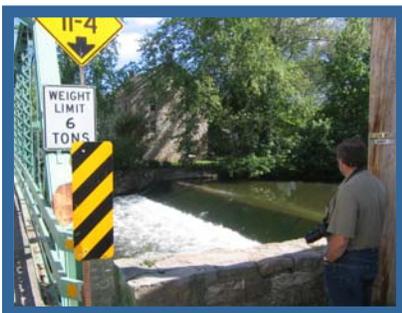
## Groundwork Laid for 2009 South Jersey Levee Inventory

An agreement was signed between NRCS and the US Army Corps of Engineers in August 2008 to conduct an inventory to identify and characterize the location, extent and characteristics of existing levees/dikes in South Jersey (Cape May, Cumberland, Gloucester and Salem Counties). Funding was secured by the Corps from New Jersey Department of Environmental Protection. NRCS will recommend enhanced levee safety management and emergency response activities in the final report which the partners will coordinate with a FEMA-funded Multi-Jurisdictional All Hazard Mitigation Plan.

The Delaware Estuary Levee Organization (DELO), a group supported by the South Jersey RC&D Council, identified the need for a levee inventory in a four county area. The origin and history of the levee inventory as well as planned outputs with emphasis on its future adaptability to the National Levee Inventory Database was presented at the biennial Federal Coordinating Summit sponsored by the Delaware River Basin Commission.



## Partnering in the Musconetcong Watershed



NRCS began an environmental assessment and cultural resource evaluation, as required by the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act., for improving fish passage at the Finesville Dam on the Musconetcong River. NRCS is working with three other Federal agencies, state partners and local and regional organizations. Several alternatives are being evaluated including a fish ladder, partial dam removal, full dam removal or no action. A scoping meeting was held in early December to gather local concerns related to river restoration. Anticipated date for completion of a draft environmental assessment is April 2009.

## Resource Conservation and Development (RC&D)

In New Jersey, NRCS supports two locally sponsored independent RC&D Councils and their mission to accelerate the conservation, development and utilization of natural resources, improve the general level of economic activity, and enhance the environment and standard of living in their designated RC&D areas.

### North Jersey RC&D

*(serving Sussex, Warren, Morris, Somerset, Hunterdon, Union Counties)*

Online at [www.northjerseycd.org](http://www.northjerseycd.org)

**Monitoring Musconetcong Watershed** – Extensive water quality monitoring performed as part of the Watershed Restoration and Protection Plan development has led to the identification of two subwatersheds as major contributors of bacterial contamination. Microbial Source Tracking techniques being used will help determine if the fecal coliform impairment is from human, bovine or other sources.



### Assessment Tool for Neshanic Watershed -

Information acquired from remote sensing and through interviews with local farmers is being incorporated into the Soil and Water Assessment Tool (SWAT) model. The model will be used to project water quality improvements and project cost savings if alternative practices are used in this watershed.

### Protection of Critical Source Areas in Rockaway

**Creek Watershed** - The Council is developing a network of scientists and local stakeholders to identify the critical source areas for protection, review the existing municipal land use planning documents and provide recommendations for incorporating protection of critical source areas.

**River-Friendly Farm** - Seven farms have been certified as River-Friendly and additional farms are working through the process to meet the River-Friendly criteria.

**Dry Hydrants** - Over thirty sites were evaluated in Warren County for improved rural fire protection through dry hydrant installation. Several of those sites have been approved and are currently in the design process. Fourteen municipalities in two counties, with thousands of residents will have improved fire protection with low cost and minimal environmental impact.

**Riparian Restoration** - Through a Wildlife Habitat Incentive Program Contribution Agreement, a riparian forest buffer project was completed along the Paulins Kill in Lafayette Township, Sussex County. The project involved planting 32 trees and 70 shrubs, with the help of 20 volunteers. \$3,500.00 was spent on the project with an additional \$3,722.00 of in-kind services provided.

**Riparian Restoration Plan for Agricultural Lands in the Raritan Basin** - A GIS based model is under development to determine priority levels of agricultural land in the Raritan Basin for riparian buffers. Land use, soil erodibility, threatened and endangered species, and impervious cover are just some of the parameters used to rate streamside farms.

### Stream Investigation, Stabilization and Design Workshop

– Innovative and practical streambank stabilization concepts were presented at this three day workshop which featured David Derrick, U.S. Army Corps of Engineers, and included both classroom and field sessions.



## South Jersey RC&D

(Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Middlesex, Monmouth, Ocean, and Salem Counties)

Online at [www.sjrccd.org](http://www.sjrccd.org)

**Friendly Farms** - Friendly Farms, an outreach program to agricultural producers in the Annaricken-Assiscunk-Barkers Brook watersheds, was launched in 2008. The Council's Outreach Specialist is contacting each farmer in these watersheds to discuss best management practices that will help reduce the fecal coliform and phosphorus load in the streams. This outreach program



is part of a larger grant obtained by Burlington County.

**Tour des Farms** – The Council held its second *Tour des Farms* bike ride in Burlington County. Nearly 200 riders cycled from farm to farm with “Farm Bucks” redeemable at the local farm markets along the route. Event proceeds support the Council’s “Farming for the Future” MiniGrant, which awarded a grant to the Camden County 4-H Program to educate elementary school students on the value and diversity of NJ agriculture.

**Water Conservation** – The Council continued its lawn watering program which reduced lawn irrigation by 25 million gallons last year in four communities: Toms River, Haworth, NJ, West Nyack, NY, and Wilmington, Delaware. Area newspapers are alerted by email and the Council’s website is updated daily during the summer to provide homeowners with accurate information on how much to irrigate their lawn each day based on area soils, evapotranspiration and rainfall measured at local weather stations maintained by South Jersey RC&D. This past year the Council partnered with the State Climatologist from Rutgers to improve maintenance on the weather stations. Together they plan to offer this program statewide in 2009.

**Wildlife Habitat Creation** – Council-coordinated “Team Habitat” planted warm season grasses on four sites in 2008 to improve habitat for ground nesting birds on 48 acres in Burlington, Somerset, and Mercer Counties. Team Habitat is a group of wildlife professionals from federal, state, local governments, and other non-profits that share farm and construction equipment to plant, enhance, or maintain critical wildlife habitat.

**Delaware Estuary Levee Organization (DELO)** – South Jersey RC&D was the catalyst for forming the Delaware Estuary Levee Organization to identify, update, and ensure maintenance for the 35+ aging levees located throughout South Jersey. (See page 9)

## MidAtlantic RC&D Conference

The North Jersey RC&D Council and South Jersey RC&D Council hosted the Mid Atlantic RC&D Conference in Clinton, NJ, September 21 to 24. The event drew 112 people from six states, and featured project from ten different Councils in the region, information on renewable energy, soil quality, project funding, and council management. Participants toured stream restoration projects, restored wildlife habitat areas, a dam removal site, a certified River Friendly Farm and a hatchery, and enjoyed a locally produced, farm fresh dinner at the historic Red Mill.



## Farm Bill Programs in New Jersey

[www.nj.nrcs.usda.gov/programs](http://www.nj.nrcs.usda.gov/programs)



New Jersey received over \$15 million in 2008 through the Farm Security and Rural Investment Act of 2002 (Farm Bill) for eligible New Jersey landowners and agricultural producers through five USDA voluntary programs. This was a significant increase from the 2007 funding allocated for New Jersey. For the life of the 2002 Farm Bill, NJ has received over \$75 million in conservation program funding that has been transferred directly to NJ landowners and managers through the authorized programs. Program details are provided on our website. The State Technical Committee, comprised of these and other conservation partners, recommends resource priorities, technical

guidelines and program criteria for the administration of the conservation provisions of the Farm Bill in New Jersey.

### Environmental Quality Incentives Program (EQIP)

EQIP provides financial assistance for permanent measures or management strategies to address existing resource concerns. NJ contracted with 108 producers using \$5,172,888 in 2008 funds to implement new conservation systems on 12,246 acres across the state.

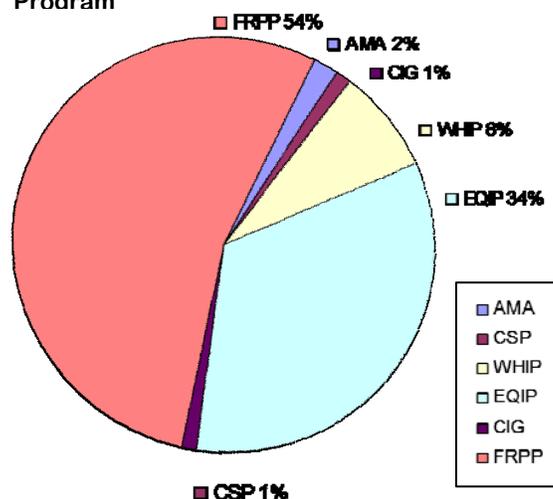
### Conservation Innovation Grants (CIG)

NJ NRCS funded four Conservation Innovation Grant projects through EQIP in 2008. Projects will develop:

- A local pelletizing facility to provide an alternate market for the warm-season grass crops in northern New Jersey. Laine Farms, Somerset County: \$75,000.
- Audit tools for use in energy-intensive horticultural and floriculture operations to discover energy conservation measures that reduce total energy use, reduce greenhouse gas emissions, and improve agricultural efficiency. Rutgers, the State University of New Jersey: \$61,193.
- A local source of black-oil sunflowers for a "Jersey Grown" bird seed mix in partnership with Audubon. The farm will use an innovative bio-char product to enhance the soil condition in the sunflower fields in an effort to improve water quality and carbon sequestration. Mark Kirby of Derwood Farms: \$52,934.
- On-farm energy audits for four farms. Up to five employees will be recruited and trained, and energy-saving strategies will be implemented on the audited farms. EnSave: \$18,090.



2008 Federal Dollars by Program



### Farm and Ranch Lands Protection Program (FRPP)

FRPP provides matching funds to purchase conservation easements to keep productive farmland in agricultural uses. NJ received \$8,065,074 for 2008 which was passed on to two cooperating entities through Cooperative Agreements. The funding will allow the protection of over 900 acres.

### Conservation Security Program (CSP)

CSP rewards producers who have demonstrated high levels of conservation and management on their farms by protecting soil and water quality. Producers in the Maurice-Cohansey and Raritan watersheds with contracts approved during 2005 and 2006 received \$174,182 in program payments in 2008. In 2008 there were two contracts awarded in the Lower Delaware watershed that earned \$1,512.

### Grassland Reserve Program (GRP)

GRP offers private landowners the opportunity to protect, restore, and enhance grasslands on their property. The maximum acreage limit was reached nation wide by the end of the 2007, with approximately two million acres enrolled in GRP since the program started. NJ continues to implement practices on the fourteen active contracts that were funded in previous years.

### Wildlife Habitat Incentives Program (WHIP)

WHIP provides financial assistance to create, enhance or maintain five priority wildlife habitat types on non-federal lands. NJ received \$1,135,298 in WHIP funds for 2008 and signed 31 contracts with landowners and managers to provide wildlife benefits on 2,491 acres in 15 counties.



### Agricultural Management Assistance (AMA)

AMA provides cost share assistance to voluntarily address issues such as water management, water quality, and erosion control. Producers may construct or improve water management structures or irrigation structures; plant trees for windbreaks or to improve water quality; and mitigate risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming. There were 9 contracts awarded in 2008 with \$255,681 in allocated AMA funds on 217 acres of land.

### Wetlands Reserve Program (WRP)

WRP provides technical and financial assistance to enhance wetlands in exchange for retiring marginal land from agriculture. No 2008 funding was received for this program in New Jersey.



# Helping People Help the Land

## Conservation in Burlington County

The Franklin Parker Preserve is a 9,400 acre property owned by the New Jersey Conservation Foundation (NJCF) in Chatsworth, New Jersey. The Natural Resources Conservation Service has partnered with NJCF to restore ecological function on 1100 acres of cranberry bogs, blueberry fields, and wooded wetlands through the Wetlands Reserve Program (WRP).

In 2008, restoration was completed on approximately eight hundred acres of cranberry bogs. The perfectly leveled bog surfaces were excavated to produce habitats with macrotopographic features. This enables a diverse community of vegetation to become established and allows for the restoration of natural hydrologic features.

Currently, NJCF and NRCS are partnering with Ducks Unlimited to design water control structures, which will be installed in the coming years. All work is being completed within the 2200 acre WRP easement area purchased by NRCS in 2005 that includes 1100 acres of restoration and 1100 acres of buffer.



## Soil Heath Initiative

Healthy functioning soil is the key to environmental health and sustainability for future generations. NRCS in New Jersey is working to help people understand and appreciate the important role that soil plays in environmental quality. Educational workshops are planned for the upcoming year.



Two initiatives started in 2008 were:

- The Ocean County Soil Conservation District (OCSCD) and NRCS are developing a Soil Quality Card that can be used by District employees and private contractors to determine if detention basins are functioning properly. This tool will help landowners and contractors select pre and post construction practices that will protect the necessary soil function.
- NRCS is assisting the South Jersey Resource Conservation & Development (SJRC&D) Council promote farm practices to help ensure long term soil productivity through the Council's Friendly Farm initiative.

## Conservation in Warren County

Warren County Soil Conservation District selected Kate Haik as 2008 Cooperator of the Year in recognition of her commitment to the conservation. The 100-acre Haik Farm borders the Musconetcong River which has a C-1 classification, the highest order of protection afforded State waterways by NJ Department of Environmental Protection. Several large erosion control projects have been installed on the farm which is preserved through the NJ Farmland Preservation Program.



- A contoured stripcropping system rotates production between corn and other field crops and hay for sheet and rill erosion control on 52 acres of Highly Erodible Land on fields rented to a local farmer. The system was designed and installed through the Environmental Quality Incentives Program (EQIP).
- A 1200 foot long grassed waterway with permanent erosion control material and a 200 foot long rock-lined outlet controls field gully erosion that previously sent topsoil and sediment into the river. With the installation of the waterway outlet, stormwater flows across a stable filter strip and buffer area into the river. A system of eight diversions, totaling 4100 feet in length, is located in permanent hay strips to control upland erosion and direct runoff into the waterway. A 3700 foot tile drainage system was also installed to collect groundwater seeps that had kept the site wet causing additional soil loss. The layout of this whole system allows the farmer to easily manage field crops without endrows. Financial assistance for construction and maintenance of this waterway is provided through the Farm Service Agency's Conservation Reserve Enhancement Program (CREP). Cost-sharing for installation of the diversions, tile system and water control structure came from the Environmental Quality Incentives Program (EQIP).
- Other best management practices being utilized on the Haik Farm include nutrient and pest management for field crop production.
- Mrs. Haik is also working with the North Jersey Resource Conservation & Development (RC&D) Council to improve and enhance a riparian forest buffer corridor between the crop fields and the Musconetcong.

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