

Albany County Soil and Water Conservation District

2011 Activity Highlights



**Streambank
Restoration**

**Agricultural
Environmental
Management**



**Community
Conservation
Education**

The District

The Albany County Soil and Water Conservation District has been in existence for over 66 years and was created by the Albany County Board of Supervisors in 1945 under NYS Soil and Water District Law. The District's total 2011 operating expenses were \$303,239.00. Our 2011 funding allocation from Albany County was \$80,671.00. The remainder of the District budget comes from competitive grants and performance measure reimbursement from NYS.

The District has received five grants in the past four years, with the state funding awarded totaling over \$545,339.00. These dollars go directly to conservation projects and programs for Albany County.

Green Infrastructure Practices At Work



The ACSWCD was honored to be a part of a new series of video clips that provide a close-up look at modern techniques to manage storm water. Available on-line at www.lhccd.org/green-infrastructure.html, the video segments feature working projects throughout the Hudson Valley and New York City that capture and clean rainwater and snow melt.

As spring rains fall across the region, our built landscapes alter the natural ability of soil to soak up and filter runoff. The result can be flooding and pollution in streams and reduced groundwater supplies. New green infrastructure practices – like rain gardens, rain barrels, and porous pavement – use soils and plants to collect, store and filter rainwater. Benefits include clean

streams, plentiful well water, reduced flooding, enhanced wildlife habitat, shade from trees, and visual beauty. Some of these practices can be easily used at home, like rain barrels that collect roof runoff for use in gardens.

County Soil and Water Conservation Districts (SWCDs) have been technical leaders in green infrastructure implementation. This video series showcases Districts' projects throughout the region on public and private lands, in urban, suburban and rural settings.

“In addition to conservation districts' traditional role of assisting farmers in protecting soil and water resources, the districts in the Hudson Valley and New York City are leading the way in controlling water pollution in urban and suburban settings,” said Lower Hudson Coalition Coordinator Emily Svenson. “Small green infrastructure projects throughout the landscape add up to big results in protecting clean water and a healthy environment for future generations.”

Demonstration Rain Gardens



In 2011 three Demonstration Rain Gardens were installed as a joint effort between the Albany County Soil and Water Conservation District, Cornell Cooperative Extension (CCE) Albany County and the Stormwater Coalition of Albany County. One garden was installed at Cook Park in the Village of Colonie, the second at the Public Operations Center in Latham and the third at the Unitas Memorial VFW Post in the Village of Ravena. The garden in the Village of Ravena was funded through a grant applied for by the Onesquethaw Coeymans Watershed Council grant sponsored by New England Interstate Water Pollution Control Commission, NYS Department of Environmental Conservation and Hudson River Estuary Program. Rain gardens are designed to capture runoff from adjacent parking lots, roofs and other impervious surfaces, helping to prevent stormwater contamination. Stormwater picks up contaminants that come from petroleum products, fertilizers, road salt, litter and more.

Stream and Wetland Protection and Restoration



Before restoration - stream cut channel
Towards the home

As a result of the floods of 2011, the Beaverdam Creek located in the Town of Berne experienced severe erosion. The Creek was in the process of forming a new channel flowing directly at the residence of Ms. Shirley Morey. Ms. Morey feared future damage to her home and property and contacted the Albany County Soil and Water Conservation district for assistance. Using the downed trees and material on site the project agreed upon was to back fill the gully toward the residence and stabilize the stream bank into the original channel. Gravel from the stream bed was used to fill the gully created from the



After restoration - stream channel
makes soft turn with riffles

flood. Roughly ten large tree roots were used to stabilize the stream forcing the water away from the banks at a major bend in the stream. This will create a deeper pool around the turn and reduce the waters velocity thereby reducing future erosion and creating fish habitat. This slight meander will hopefully also slow the stream as it moves toward the state 156 bridge downstream protecting future damage. A large gravel bar in the stream was lowered to act as a temporary floodplain during future floods.

Agricultural and Community Recovery Fund



500 ft access road damage

The Albany County Soil and Water Conservation District acquired over \$65,000 from Governor Cuomo's Agricultural and Community Recovery Fund to assist several Albany County farmers recover from destruction caused by Hurricane Irene and to help prevent further damage.

Among the first responders on the scene, the Soil and Water District immediately assessed damage eligible for the emergency funding, submitted applications and designed projects to restore the damaged infrastructure.

On one farm alone, the damage to access roads and bridges was so severe that cows were stranded, unable to get home to the farm. Immediate

rebuilding for access was top priority along with restoration of thousands of feet of fencing to keep the cows out of the stream to help protect water quality and the City of Albany's drinking water supply.

Projects on other devastated farms included: restoration of fencing to restrict livestock access to water sources; stream crossings at defined points designed to handle the transport of machinery and cows; and debris removal of clogged streams where overflows devastated farmsteads, crop fields and pasture. Completion of these projects helped to restore and protect water quality, farmland, homes and property, along with habitat for fish and wildlife.



Repaired access road

“Go Green Day”



The District staff assisted the Capital Region Recycling Partnership and the Cooperative Extension Albany County, in holding the “Go Green Day” event in April. There was an estimated 600 people in attendance at the event. Conservation District staff members were on hand to give out free tree seedlings, answer questions and demonstrate pollution and its prevention utilizing an Enviscape Model. Participants were treated to a number of educational booths, a “Kid Zone” with hands on activities for children, a Rain Barrel/composter sale and demonstration, CFL/Fluorescent Light Bulb Collection and much more. Over 80 rain barrels and 14 composters were sold during the event.

Vermicompost Workshop



A training workshop was offered for homeowners interested in learning how to use red wiggler earthworms to convert kitchen scraps into a nutrient-rich fertilizer to feed back to their plants. Approximately 30 homeowners saw a demonstration on how to set up an indoor worm bin and reviewed basic care and maintenance. Handmade indoor compost bins with worms were given to 18 participants who agreed to participate in the waste-tracking program. This is a pilot project to assess the potential waste stream reduction and soil building possibilities through vermicomposting throughout the County.

Technical Assistance



The mission of the Albany County Soil and Water Conservation District is to improve local land management practices and provide technical assistance to residents, landowners, and units of government throughout Albany County. The District assists county residents, municipal staff, county government staff, and others by providing a variety of information and permit assistance on stormwater management, erosion and sediment control, pond management, wetland identification, native and invasive/exotic plants identification and management, other natural resources management, and identification of soil types and characteristics. Resources made available to the public included soils maps and interpretation, USGS Topographic maps, Historic Aerial Photography, Flood Rate maps, NYS & Federal Wetlands maps, and information on pond construction and care. This assistance includes field visits as well as telephone, and in-office services.

Agricultural Assessments



The District continues to assist eligible landowners in filing for agricultural assessments as it relates to their farmland. The Agricultural Districts Law allows reduced property tax bills for land in agricultural production by limiting the property tax assessment of such land to its prescribed agricultural assessment value. As part of a statewide program, the District completes a Soil Group Worksheet, identifying the various soil types that make up a parcel of land. These soils are then categorized into soil groups, having each group valued differently for farmland assessment purposes. This allows farmland to be assessed based on its agricultural value, rather than its full market value, keeping land in production. Many acres of our countryside would remain idle or be converted to another form of land use without this important state program. These open workable lands provide wildlife habitat, open space, natural resource diversification, employment & economic opportunities. During 2011 alone, the District completed 40 soil group worksheets for 29 farm operations, enrolling 1,148 acres of farmland into the Ag Assessment program.

Fox Creek Stream Restoration Project



Streambank erosion on highly productive crop field

In the fall of 2010 the Albany County Soil and Water Conservation District applied for and received Conservation Project Funding to complete a Fox Creek Stream Restoration and Habitat Improvement Project. Implementation of this project took place during the 2011 construction season.

The Fox Creek is a dynamic stream that snakes its way through the town of Berne. For the past few years on a 100 foot stretch the Fox Creek has eroded 15 feet of very productive farm land on one of Alan Lendrum's fields (prior to Tropical Storm Irene). Mr. Lendrum came to the Albany County Soil and Water Conservation District for help on potential solutions to this issue. Along with erosion and loss of land there was an increased amount of sediment into the stream that was compromising the aquatic ecosystem.

The Conservation District determined that the eroding stream bank would be corrected using Natural Channel Design (NCD), which is a stream restoration method that mimics natural healthy stream characteristics. The goal is to restore pools and riffles thus reducing stream bank erosion and creating fish habitat, reconstructing floodplains and returning natural stream bank vegetation. NCD utilizes the streams inherent ability and power by coaxing the stream to redirect its energy into the center of the channel and away from the banks. Not only do NCD's have longer lasting benefits than conventional methods they also cost much less to implement in larger projects.

This project consisted of two rock J-Hooks angled upstream that push the stream energy into the center of the stream. Two gravel benches were constructed to allow deposition of sediment during flood events and allow the continued build up of sediment along the stream bank. The benches form an area excellent for riparian vegetation to quickly become established. The work also consisted of a Toe Log structure upstream in a sharp bend that was experiencing erosion and adding more sediment into the stream. A Toe Log is several large trees inserted into the bank with its roots angled upstream into the channel, the roots slow the oncoming water and protect the stream bank. The tree roots also provide a great area for fish and other aquatic species. Conservation District staff members have installed riparian vegetation in order to help protect the banks as well as help reduce water temperature to improve the overall health of the stream.



Installed J-Hook creating riffles



Riparian Planting

Installation of the project was provided by Carl Schwartz, Martha Naley and Mark Rienhart from U.S. Fish and Wildlife Services. "Fish and Wildlife staff really knew what they were doing, their operator was one of the best I've ever seen" said Alan Lendrum, Lendrum Farms. Albany County Soil and Water Conservation District worked with Roy Lambertson of the Clear Water Chapter of Trout Unlimited on design and implementation of the stream project.

"The Albany County Soil and Water Conservation District made it easy, they knew what avenues to take and found funding...this project has saved a very productive field, I couldn't be happier" said Lendrum.

Agricultural Environmental Management



AEM is a voluntary program that provides farm operations with a means to address natural resource concerns related to agriculture. Through the implementation of the Agricultural Environmental Management (AEM) program, Albany County Soil and Water Conservation District staff can assess a farm's impact on natural resources and work with them to create a long-term business plan. This assessment can help document environmental stewardship, prioritize areas that present risks, identify opportunities to save money, and locate available resources to address potential concerns. By following sound agricultural practices, reducing sedimentation and carefully applying nutrients, farmers are ensuring healthy water quality levels. The District provides farmers with free assessments of their

operation and works together with them to implement conservation practices that will address environmental concerns. AEM participation in the program includes more than 215 Albany County farms.

Conservation planning is an integral part in the success of this program. Plans are customized farm by farm and based on watershed needs. A total of 8 conservation plans were developed in 2011, with several more working through various stages of the planning process.

The District then applies for state grants that provide up to 75% cost sharing for practice implementation. District staff applied through the NYS Agricultural Nonpoint Source Pollution and Abatement Program to mitigate issues stemming from two farms located within Albany County. Practices applied for strive to reduce the impact these farms have on their respective watersheds. This past year public health and safety was at the forefront of everyone's attention, as all agencies strive to do more with less. In Albany County there are several surface waterbodies, many of which public drinking water or recreation is an impacted use. The SWCD was successful in receiving funding on one farm in 2011 for a total of \$171,388 in NYS assistance.

The District also had a very vital role in the successful application and implementation of NRCS Environmental Quality Incentives Program (EQIP) projects. In fiscal year 2011, 4 contracts were funded totaling \$259,980 in conservation assistance. The Albany County SWCD implemented 16,000 feet of fencing as part of Rotational Grazing Systems through NRCS Programs.



We look forward to continuing to serve you in 2012!

Board of Directors : John Santacrose (Chairman), Charles Houghtaling (Vice Chairman), Edward Kleinke, Herbert Reilly and Howard A. Shafer

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