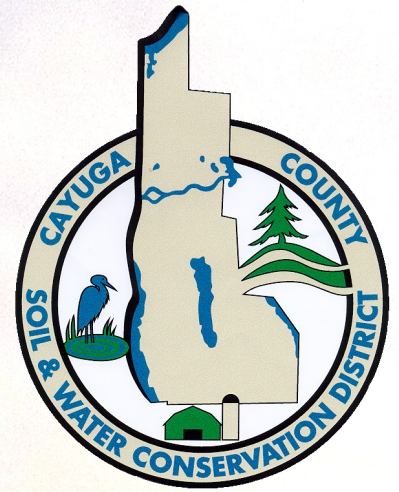


Cayuga County Soil and Water Conservation District

# Conservation in Action

2012 Annual Report



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Photo Credited to Katie Jakaub



### Mission Statement

It is the mission of the Cayuga County Soil and Water Conservation District to enhance and protect the natural resources of Cayuga County through "hands-on" implementation of best management practices.

### Cayuga County Soil and Water Conservation District

#### STAFF

Ronald Podolak	<i><b>Executive Director</b></i>
Jim Young	<i><b>Interim Executive Director</b></i>
Doug Kierst, CPESC, CPSWQ	<i><b>Conservation District Field Manager</b></i>
Sandy Huey	<i><b>Watershed Program Manager</b></i>
Valerie Horning	<i><b>Conservation District Technician</b></i>
John Fraser, CPESC, CCA	<i><b>Nutrient Management Specialist</b></i>
Jason Cuddeback, CCA	<i><b>Grazing Specialist</b></i>
Wanda Jakaub	<i><b>Principal Account Clerk</b></i>
Lisa Miller	<i><b>Senior Typist</b></i>
Katie Jakaub	<i><b>Owasco Lake Watershed Inspector</b></i>
Karl Radcliffe	<i><b>Foreman</b></i>
Pat DeVoe	<i><b>Motor Equipment Operator</b></i>
Tim Lozier	<i><b>Motor Equipment Operator</b></i>
Sean McCarthy	<i><b>Motor Equipment Operator</b></i>
Denise Dixon	<i><b>Cleaner</b></i>
Bruce Purdy	<i><b>Motor Equipment Operator</b></i>

#### Cayuga County Regional Methane Digester Staff

Mike Riley	<i><b>Digester Foreman</b></i>
Al Noga	<i><b>Motor Equipment Operator</b></i>
Jim Burns	<i><b>Digester Staff</b></i>
Paul Herrling	<i><b>Motor Equipment Operator</b></i>

#### USDA Natural Resource Conservation Service

Katherine Schor	<i><b>District Conservationist</b></i>
Shannon Bozeat	<i><b>Soil Conservation Technician</b></i>

### Executive Director Ron Podolak

#### Retires from District

After 40 years of dedicated service to the Cayuga County Soil and Water Conservation District, Ronald Podolak retired in late October, 2012. He started working for the District in his late teens as a motor equipment operator. He blended his love for the land with a deep sense of practicality. He helped to develop and transform the Cayuga County Soil and Water Conservation District into a Statewide and nationally honored steward of the environment.

In 2012 alone, under Ron's leadership, the District competed for and obtained almost \$3 million in state and federal funding for conservation projects in Cayuga County. In addition, Ron and his staff have worked tirelessly to develop a cutting edge community digester that will use first-of-its-kind technology in North America to convert manure and food wastes into electricity and heat for the County Campus, plus fertilizer and animal bedding for local farmers. Congratulations Ron!



Doug Kierst & Ron Podolak

### Board of Directors

Ray Lockwood	<i><b>Chairman, Member at Large</b></i>
James Young	<i><b>Vice Chairman, Farm Bureau</b></i>
Stephen Barski	<i><b>County Legislator</b></i>
Charles Roberts	<i><b>Member, Grange</b></i>
Dale Kehoe	<i><b>Member at Large</b></i>
Steve Nemec	<i><b>Member at Large</b></i>
Paul Pinckney	<i><b>County Legislator</b></i>

### Awards Received in 2012

#### Commendation Award from New York Association of Conservation Districts

In October 2012, Ron Podolak was recognized for his dedication to our district by receiving this award from the New York Association of Conservation Districts; "In recognition of the professionalism & dedication serving the Cayuga SWCD by promoting and advancing programs with a high degree of skill while setting the standard for quality Conservation Districts"

### A message from the Interim Executive Director

**Jim Young has been a member of the Cayuga County Board of Directors since 2008**

The most significant event that happened this year at the Cayuga County Soil and Water District was Ron Podolak's retirement. Ron has been a valuable asset to our District and has served in various capacities for 40 years, the last 5 as Executive Director. **The Cayuga County Board of Directors has begun a search to find the next director; something that they hope is completed in early 2013.**

We continue to move forward with the Cayuga County Regional Methane Digester. The goal is to have it completely operational in early 2013.

We continue to be successful in obtaining grants through our participation in State AEM. During the Round 19 we submitted 5 proposals to fund \$1,111,404.00 dollars in BMP's on 17 farms.

In the upcoming year we are trying to find ways to improve our involvement in other than farm programs to improve the regions soil and water. These include storm-water management, stream management, stream monitoring programs, and urban and suburban programs. Several of our staff are involved in WQMA working groups to benefit the watersheds throughout our County.



## District Assistance to Municipalities

**Waterline Repairs and Installation**—The Cayuga SWCD assisted the County Water and Sewer Authority with the repair on a valve to a waterline that was located in a sensitive area.

**Surface Drainage Improvements**—At Cayuga County's Emerson Park, minor shaping and grading was used in combination with a grassed waterway, were utilized to control the surface water that flows through the main areas of the park. The District's hydroseeder was used to vegetate all disturbed areas.

**Permit Assistance**—Assistance was provided directly to municipalities that had proposed to do work along watercourses. Staff worked with the municipality to complete the permit application process to ensure State and Federal regulations were adhered to.

**Wood Waste Recycling**—The SWCD tubgrinder was used at 7 locations in Cayuga County. Many of the municipalities utilize the mulch that is generated, as a resource to give back to their residents for landscaping.

**Dry Hydrant Assistance**—District Staff worked with local municipalities and organizations to evaluate sites for potential dry hydrant installations to be used in case of emergencies.



Example of documents used for permitting assistance.

## Conservation Techniques

**Rain Barrels**—The CCSWCD District has 55 gallon rain barrels available to purchase at a low cost price. A rain barrel is an easy way to collect and store rainwater from rooftops to use for watering plants and gardens, helping to conserve water and help lower costs. In addition, runoff could easily travel across paved surfaces collecting pollution along the way harming local waterbodies.

**Barley Rolls**—Traditional mechanical and chemical methods of controlling the algae in ponds is not always effective or economical. In recent years, the use of barley straw has been found to be an extremely successful method of algae control. When applied correctly barley rolls do not kill existing algae, but rather inhibits the growth of new algae. Our barley rolls float near the surface of the water allowing water to pass through the straw, effectively reducing algae levels.

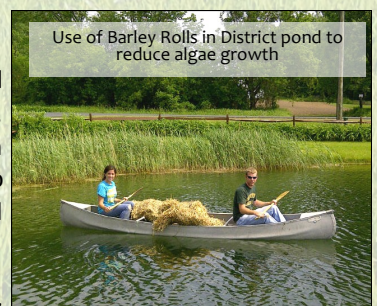
**Tree/ Plant Sale**—The Cayuga County Soil and Water Conservation District held their 41st Annual Spring Plant Sale in May 2012. As in the past, the District offered a variety of conifers, hardwoods, shrubs, groundcovers and perennial plants. Fruit Trees and native flowering plants have also been recently added. These seedlings and other plants are a very low-cost way to prevent erosion and to promote wildlife in your area, create noise and visual buffers, and are perfect for creating natural snow and wind breaks. **In 2012 the District sold over 15,000 Trees in our Annual Tree Sale.**

**Tree Planting**—The CCSWCD mission statement stresses the “hands-on” values of conservation. There is nothing more hands-on than tree planting. Each spring the District takes on a few tree planting projects where the staff looks forward to getting their hands dirty planting thousands of trees. **This year the staff planted over 1500 hardwood and conifer trees.**

**Zero Phosphorous Fertilizer**—Most lawns in New York State do not need additional phosphorus for healthy growth. Plants will only absorb enough phosphorous as needed, leading the excess to be washed into streams, lakes, and reservoirs. Fertilizer in water can create excess algae, plant growth and green scum that poses a threat to water quality and aquatic species. Therefore under New York State law effective January 1st, 2012 fertilizer containing phosphorous may only be applied under approved special conditions. The District offers zero-phosphorous fertilizer at a low cost price to protect our freshwater resources.



Rain Barrels conserve water and lower costs



Use of Barley Rolls in District pond to reduce algae growth



Trees planted by District with tubing to protect hardwoods



## District Services

### Conservation No-Till Seeding



The District continued to work with local farmers and conservation programs on seeding projects with our no-till seeder. The District's 12 foot wide no-till drill can handle the variety of seed types used for pasture, hay, wildlife habitat, and food plots with minimal soil disturbance. **In 2012 the district seeded approximately 85 acres of pasture lands and fields including; 70.2 acres of Pasture, 4.2 acres of Warm Season, 1.6 acres of Buffer, and 8.6 acres of Cover Crop.**

### Conservation Mowing

The CCSWCD owns two mowers that are used in our conservation mowing program. The boom mower has a floating brush-hog style head on an arm that gives it a reach of over 15 feet. It is best for trimming back overgrown hedgerows, ditches and roadsides. The "bat-wing" deck mower can mow 15 feet in one pass, making it ideal for overgrown pastures and field conservation programs. Over the last few years, the District has been increasing the number of acres mowed and trimmed. **In 2012, SWCD mowed 43 acres of land and approximately 480 miles of conservation ditches, field edges and roadsides.**



Bat Wing Deck Mower can mow 15 feet in one pass

### Wood Waste Recycling

Municipal and commercial wood waste piles can often be difficult to dispose of. With the Cayuga County Soil and Water Conservation District's Tubgrinder and hydraulic shears, large quantities of wood waste can be quickly and efficiently processed into readily usable wood mulch. **In 2012, the district used its tubgrinding services to recycle approximately 33,000 cubic yards of woody debris for approximately 19 municipal organizations.**



Tubgrinder Operated by Karl Radcliffe

## Erosion and Sediment Control

### Critical Area Seeding

Soil erosion and sedimentation is one of the leading causes of water quality degradation. The CCSWCD uses many tools to establish grass cover on bare soils. From our 1,000 gallon hydroseeder to hand seeding, the District can quickly respond to requests for assistance. The Cayuga County Soil and Water Conservation District provides hydroseeding for County, Town and Village governmental departments. **In 2012, the District completed 14 acres of critical area seeding including road and stream banks, highway ditches, steep slopes, and areas of disrupted soil due to construction.**



CCSWCD Staff hydroseeding bare soil in Emerson Park



Seeding and Mulching on a hillside diversion implemented by CCSWCD Staff



Hydroseeding roadside ditches



## Cayuga County Regional Methane Digester

The Cayuga County Regional Digester is a facility that will use cow manure and other organic wastes to produce methane gas. In turn, this gas will power a generator that will create electricity and heat for the digester office, public safety building and nursing home. The digester is based on a concept being used in Germany and other European countries, where farms bring fresh manure to the plant, and receive liquid soil amendment in return. Currently there are over 7000 working digesters in Europe while there the total number of farm digesters in the US is under 200.

The CCSWCD had many reasons to take on such a large project. One of the reasons was to use the project as a demonstration to show how lessons learned in Europe could be used in New York State. A basic digester is a fairly simple concept; however, our plant has additional layers of automation and technology used to make the process more efficient.

In the Spring of 2012, the digestion process was started, and then stopped due to issues with a tank that cracked. The tank was repaired over the summer and fall, and at the end of the year, the plant was being brought back onto line.

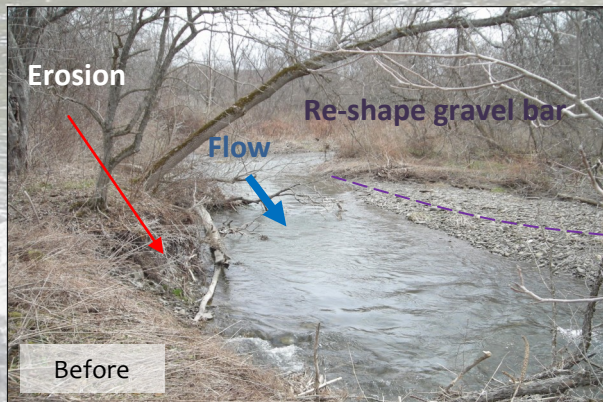
Along the way, the lessons that we are learning are being shared with others who are thinking about building and designing a digester project. As a way to judge the interest in digester projects, over 300 people visited our plant in 2012. In the fall, the Governor's Committee on digesters paid a visit to the project to see what challenges are faced by plant designer and operators as part of their investigation into community based digesters.



## Streambank Stabilization

### Owasco Inlet Erosion Control: Booth Hill Road, Town of Locke

A section of bank on the Owasco Lake Inlet that flows behind a property on Booth Hill Road in the Town of Locke had been eroding for several years, however the last few years it had gotten much worse. A large gravel deposit was re-directing the thalweg flow towards the bank that is directly behind this residence, cutting deeper into his property year after year. The water level of the Owasco Inlet, like most rivers and streams, is affected by seasonal extreme rain events and snow melt making the stream banks more prone to erosion during these events. On average, 70 tons of sediment is lost for every stream bank mile in New York State each year.



The Cayuga SWCD installed rock riprap and vegetative plantings along 150 linear feet of the bank. Rock rip-rap was keyed into the stream 2 feet to protect the toe of the slope and was installed up the bank to the bankfull elevation. The remaining vertical, eroding bank was graded and planted with trees and shrubs. As a goal to maintain the channel capacity, the gravel bar in the channel was re-shaped to reduce the heavy concentrated flow it was directing towards the bank. Approximately 40 Cubic Yards was removed and placed in an upland location. An additional 75 foot section of previously installed rip-rap that was in need of repair, was also re-set.





## Stormwater Management

Originating from precipitation events and snow melt, stormwater can pick up many different forms of pollution, especially in urban areas, as it flows over impervious surfaces and open soils en route to its destination, which is usually a local body of water. For this reason it is important to use stormwater management techniques, as to mitigate both volume and pollutant load of stormwater through best management practices.

### Storm Water Management Training

In New York State, all construction projects that create an acre or more of disturbed soil must have a SPDES General Permit for Stormwater Discharges from Construction Activity. All contractors working on SPDES sites are required to complete a four hour Erosion and Sediment Control Training Course. This course familiarizes participants with the permit, their responsibilities under the permit, site inspections, and several of the best management practices, thus resulting in reduced runoff and better water quality. **The Cayuga County Soil and Water Conservation District held eight Erosion and Sediment training courses in 2012 with over fifty participants.** Our district is fortunate to have two employees Certified in Erosion and Sediment Control (CPESC) on staff, one of whom is also a Certified Professional in Storm Water Quality, to educate and assist with local stormwater issues.



During Construction

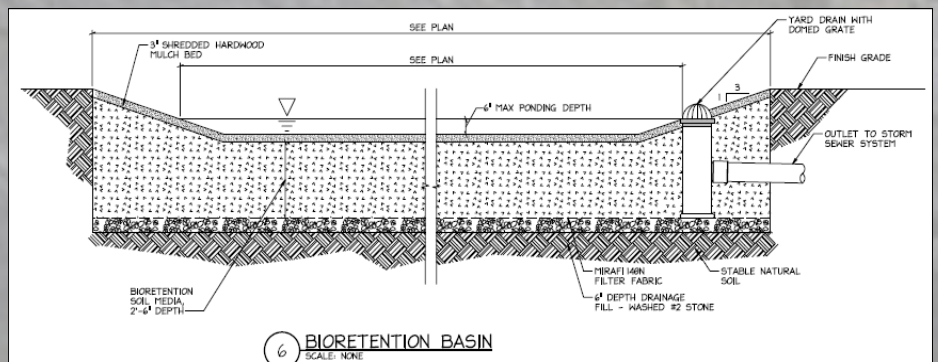


Completed Basin with native grass plantings to filter stormwater

## Bioretention Basin Installed at Emerson Park

The Cayuga County SWCD has been busy assisting Cayuga County with the implementation of various components associated with the Emerson Park Pavilion Project. In addition to the structural upgrades, infrastructure and landscaping improvements are a crucial component to the plan. The CCSWCD assisted in the construction of a bioretention basin that is designed to treat and filter the stormwater runoff that is generated from the park pavilion and site, in a step to protect Owasco Lake. The basin will filter runoff through plants and several constructed layers, allowing heavier sediment to be removed prior to entering the Owasco Lake Outlet, as well as provide an area of planted vegetation that will aid in nutrient uptake and aesthetics. Further filtering takes place as the runoff slowly seeps through the underlying soils before reaching groundwater. The plants in and around the basin are native to this area, have excellent filtering capabilities, and attract birds, butterflies and wildlife.

Below is an original plan for the project, showing the many components that work together to remove sediment from stormwater runoff. Some of the layers include drainage stone fill, stable natural soil, filter fabric, shredded mulch and native vegetation.





## Aquatic Vegetation Control Program

Cayuga County is home to a very diverse network of waterbodies. Within the county, you will find Lake Ontario, Cayuga, Owasco, and Skaneateles Lakes. In addition there are several smaller waterbodies including Lake Como and Otter Lake. These waterbodies are used year round by local residents and visitors alike. The most common complaint from individuals utilizing Cayuga County's beautiful lakes is nuisance aquatic vegetation. Due to nutrient inputs and sunlight, aquatic vegetation is an unavoidable reality in these natural ecosystems. From hindering navigation and swimming, to creating water and air quality issues during mass die off events, aquatic vegetation can dramatically interfere with people's use of the lakes. The Cayuga County Aquatic Vegetation Control Program's objectives are to increase the accessibility and usability of the County's waterbodies, while seeking to leave the lakes as ecologically intact as possible. The AVC program seeks to provide relief to the County's waterbodies where usability has become impaired by dense vegetative growth.

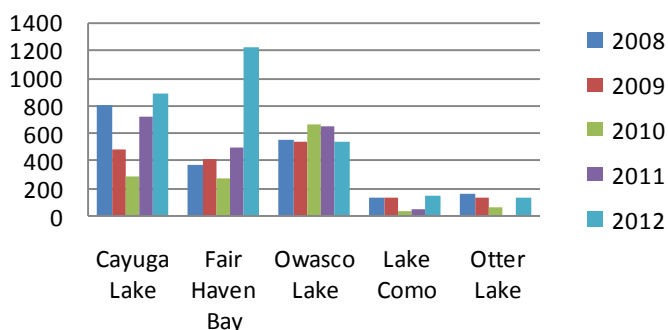
The District's AVC program consists of two boats, an on-shore conveyor, and a small dump truck. The largest boat is a paddle-wheel type boat that is designed to access heavy vegetation and shallow water. This boat cuts and picks up the weeds. The second boat is a transport boat which is used on the larger lakes to cut down transport time from the cutting area to the truck, increasing the efficiency of the program. The weeds are off-loaded onto the dump truck using the conveyor, and taken to a near by farm where the vegetation is used as compost to enrich the soil.

The warm, dry summer led to strong vegetative growth throughout Cayuga County. We kicked off the 2012 AVC Program at Otter Lake since we were unable to cut in Otter Lake during the 2011 season. Low lake levels due to the high temperature and low amounts of precipitation were a hindrance to harvesting operations in Cayuga Lake and Owasco Lake. Several areas had to be abandoned because the harvester could not safely enter shallow waters. Due to these conditions, two harvestings were completed on Cayuga Lake and only one operation was completed on Owasco Lake. Growth on Lake Como was much stronger this season compared to previous years, leading to our highest harvest totals in five years for this waterbody. Two separate cuttings were also completed on Fair Haven (Little Sodus) Bay, one in the beginning of the season and one in the end. Shallow waters and silt bottoms provide excellent growing conditions for plants in areas affected by high amounts of vegetative growth.

### In 2012, the Aquatic Vegetation Control Program removed from Cayuga County waterbodies:

- 2,905 cubic yards (Yd<sup>3</sup>) Aquatic Vegetation
- 377,650 dry pounds Aquatic Vegetation
- 7,959 pounds of Nitrogen
- 675 pounds of Phosphorus
- 4,241 pounds of Potassium

### 5 Year History



This 5-year AVC harvesting chart compares the variation in the amount harvested year to year in major Cayuga County Waterbodies, measured in volume of vegetation removed (cubic yards). 2012 was an above average year for weed growth with a total of approximately 2,905 cubic yards harvested.



Harvester Boat Operated by Tim Lozier



Sean McCarthy operating Transport Boat carrying harvested weeds to be taken to a local farm





## Agricultural Environmental Management (AEM)

Farm planning and natural resource protection in New York begins at the local level through the Agricultural Environmental Management (AEM) program. The AEM program helps farmers implement environmentally and agriculturally beneficial practices. Through the AEM process our District is able to document the importance of farming in Cayuga County, provide technical assistance to farms, and help put local farmers in touch with grant funding available for conservation practices.

**Some of the conservation practices applied in Cayuga County include: Animal Trails and Walkways, Comprehensive Nutrient Management Plans, Cover Crops, Critical Area Planting, Subsurface Drainage, Waste Storage Facilities, Fencing, Filter Strips, Grazing Plans, and Stream bank and Shoreline Protection.**

The AEM program has five different Tiers:

Tier I— Inventory current activities, future plans and potential environmental concerns.

Tier II— Document current land stewardship: assess and prioritize areas of concern.

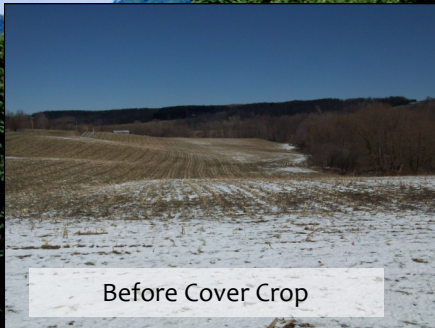
Tier III— Develop conservation plans addressing concerns and opportunities to reach farm goals.

Tier IV— Implement plans utilizing available financial, educational and technical assistance.

Tier V— Evaluate to ensure the protection of the environment and farm viability.

### 2012 AEM Accomplishments

<b>Tier I-</b>	<b>4</b>
<b>Tier II-</b>	<b>4</b>
<b>Tier IIIA-</b>	<b>9</b>
<b>Tier IIIB-</b>	<b>2</b>
<b>Tier IV-</b>	<b>1</b>
<b>Tier VB-</b>	<b>5</b>



Before Cover Crop



After Cover Crop



Pasture Seeding with  
No-Till Seeder



Water & Sediment Control  
Structure



Vegetated Treatment Area



Animal Trail & Walkway

### AEM aims to:

- Provide environmental stewardship
- Protect our food supply
- Maintain the rural economy
- Impact water quality
- Impact fish & wildlife habitat
- Open space, and scenic vistas
- Impact air quality and energy
- Improve/maintain viability/ competitiveness
- Promote good neighbor relationships

### To achieve these goals, AEM will:

- Document farmer's environmental stewardship
- Provide a comprehensive look at environmental risk and opportunities on farms
- Provide information that can be used to make decisions on the use of limited resources by farmers and resource managers
- Prioritize and prepare farms for implementation considering all available funding sources
- Promote progressive systems-based conservation planning that analyzes the entire farm
- Identify agricultural benefits to the community

### Funded Round 18 Ag Nonpoint Source Projects for Farms:

- Cover Crop Seeding- \$87,116.00
- Waste Storage on two farms on the Cayuga Lake Watershed —\$366,153.00

### **BOOTS TO SOIL...**

The District is working with the Seneca County SWCD to implement Best Management Practices under the Round 18 Ag. Nonpoint Ag. & Markets State Grant. Soil and Water Districts cooperating together to put **BOOTS TO SOIL**, implementing BMP's to improve water quality to our lakes, rivers and streams. Total project funded was \$1,097,128 to implement grazing and manure management.





## Agricultural Implementation– Graze New York



Prescribed grazing utilizes Best Management Practices (BMP's) to help improve animal forage while reducing the movement of nutrients into water bodies. This is done by encouraging the establishment of healthy vegetated pastures for animal forage, implementing perimeter fencing, pasture/hay land plantings, animal walkways and watering systems prevent animals from roaming into hydrologically sensitive areas that could pose a water quality issue.

The District Grazing specialist works one-on-one with farmers all over the county in developing new, expanded, or enhanced rotational grazing plans. The process and resulting product helps farmers make decisions that improve profitability and time management while also protecting natural resources and making progress toward sustainability. The grazing plans address these areas:

### Pasture quality assessment

- Soil characteristics and sampling for soil nutrient analysis
- Grass species identification and seeding recommendations
- Forage yield potential and sampling for forage nutrient analysis

### Stocking rate recommendations

- Enough acres for the size and number of livestock
- Paddock sizing and rotation schedule
- Areas reserved for mechanical harvest, bird habitat, or feed stockpiling
- Supplemental feed plan if needed due to limited acres, nutrition needs, or drought

### Infrastructure improvements, planning & cost estimation

- Perimeter fencing
- Water supply & delivery system
- Animal laneways & access roads

### Funded Round 18 Agricultural Nonpoint Source Projects for Farms

- Owasco Lake Pasture Management- \$108,903.00
- Cayuga Lake Pasture Management- \$93,433.00

450' Animal Trail & Walkway w/  
Permanent Fence



Riparian Herbaceous Cover w/  
Exclusion Fence



## Comprehensive Nutrient Management Planning

Nutrient management plans help farmers balance their nutrient applications (manure and fertilizer) with the needs of the crops. Soil samples are an important part of this balance, and are taken on all of the fields. The nutrient management plan also defines what crop rotations the farm will be using. These rotations must keep erosion rates below a defined "tolerable" level for the soil types present. By following this plan a farm can reduce erosion and nutrient losses from their fields, thereby helping to improve the water quality. By balancing manure applications, a farm can also reduce their fertilizer costs. Farms that have a Concentrated Animal Feeding Operation (CAFO) permit and farms that are in certain programs must follow their nutrient management plan. However, the farm operator should continue to use his or her own caution and good judgment when applying nutrients, as they are still responsible for keeping those nutrients away from water courses; even when these nutrients are applied according to a nutrient management plan.

In addition to taking a close look at all of the land that a farmer works, a planner must look at the farmstead facilities. Barnyards, feed storage areas, and milking centers are all potential sources of nutrients that need to be addressed. If a component of a farmstead is contributing nutrients to a waterbody, then the plan describes the course of action that will be taken to fix it. A plan that covers both the agronomic (field) practices, as well as the farmstead, is called a Comprehensive Nutrient Management Plan (CNMP). CNMP's must be updated annually. **In 2012 the District Developed two new CNMP's and updated four existing CNMP's, totaling 2,324 acres.**

Manure Spreading Equipment being calibrated  
as part of a nutrient management plan





## Bunk Silo Leachate System

Vegetated treatment area with a gravel lip spreader



New Curb diversity bunk silo runoff from a clean water surface inlet

During the fall of 2012 District staff began construction on a bunk silo leachate system for a 200 cow dairy farm in the Cayuga Lake watershed. Silage leachate contains high concentrations of nutrients, acid and has a high Biological Oxygen Demand (BOD). If it gets into soil or water, it can damage the quality of ground and surface water. This project received funding from the NYS Agricultural Non-point Source Pollution Abatement and Control Program. The project will include the following components:

- A low flow collection system encircling the bunk that will transport concentrated leachate to an existing manure storage.
- A high flow/low flow separator that will capture runoff from the bunk and direct it either to the manure storage or to a vegetated treatment area.
- A grassy vegetated treatment area (VTA) that will filter the more dilute runoff from the bunk silo following a precipitation event.
- Curbing that will exclude leachate from an existing clean water system.
- A drip trench that will divert clean roof water from the site.

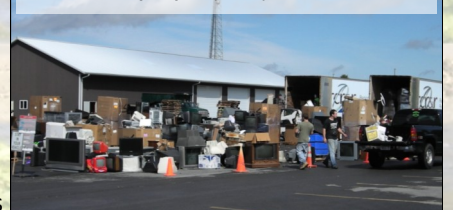
In October District equipment operators and technicians completed the VTA, the drip trench, approximately half of the low flow collection system, and the gravel base for the curbing. The farmer contributed in-kind services to complete the forming and pouring of the curb. The remainder of this project will be completed in 2013.

## Community Recycling Events

The Cayuga County Soil and Water Conservation district is the host site for four significant recycling programs. The District works with the Cayuga County Planning Department and Cornell Cooperative Extension, who act as coordinators of these events. The District assists by making facilities, equipment and staff available. Be on the lookout for dates of the upcoming 2013 recycling events.

- **HOUSEHOLD HAZARDOUS WASTE CLEANUP DAY-** Is an opportunity for county residents to responsibly dispose of substances that do not belong in normal garbage, such as batteries, oil based paints, and household chemicals.
- **HOUSEHOLD ELECTRONICS RECYCLING DAY-** Is geared towards the collection and recycling of electronic devices found around the home, such as televisions and computers. These are banned from regular trash since heavy metals inside these devices can contaminate ground water when improperly disposed of. Twenty-four tons of old electronics were brought to be properly recycled this past Fall.
- **TIRE ROUNDUP-** Old tires can be brought in by county residents for a small fee. Tires are then used as an alternative carbon source for the production of steel at Nucor Steel Auburn, Inc. Over 4,200 tires were recycled in June 2012.
- **TRADE-A-TREE-** County residents have the chance to drop off Christmas trees from the holiday season in exchange for a voucher granting them a free seedling. The trees are chipped with the District's Tubgrinder and used as mulch. Over 450 trees were traded and recycled in winter 2012.

Household Electronics brought in to be properly recycled



Trade-A-Tree Program



Tire Roundup is an easy way to remove and recycle unwanted tires





## Summer Youth Program

In 2012, the District was able to hire four young adults for our summer crew program. The program gives college age students a chance to work in nature and the conservation field, while gaining knowledge of the important region we live in.

The summer crew is a valuable addition to the CCSWCD work force during our busiest time of the year. This year's crew helped with recycling programs, the AVC program, stream bank enhancement projects, and assisted the CCSWCD staff with many other projects around the county. They had hands on conservation experience with: hydroseeding, critical area hand seeding and mulching, barley rolls, stormwater management techniques such as silt fence installation and soil protection, as well as assisting with surveys during different projects. The crew also planted over 1500 trees and completed the planting of over 500 plants in the bioretention basin installed at Emerson Park. The SWCD Staff and summer crew also worked with Dickmans Nursery & Greenhouse to complete the beautification and landscaping project located on the campus of the Natural Resource Center.

This program gives youth a chance to work outside in the natural environment and gain appreciation for the world around them. Many alumni of this program have gone into successful careers in Soil and Water Districts or other conservation agencies.

The Top Right picture shows the summer crew in the completed Entranceway Garden, part of the Natural Resource Center Beautification Project. Summer Crew Students were Brianna Meyers, Matt Covich, Zach Frost, and Crew Leader Kate Riley.



Implementation of weed matting to protect trees planted by District

500 Native Grasses were planted in the Bioretention Basin to filter stormwater



## Education



"Surveying" by District Staff

### Conservation Field Days

Conservation field days is an exciting way to give sixth grade students from around Cayuga County the opportunity to become better acquainted with natural resources and the environment. Professionals from various fields conduct short educational programs, enabling the students to learn not only about the subject matter discussed, but also see nature and conservation occupations in action.

In 2012 there was 12 stations for the students to attend. The stations covered subjects such as; Fire Safety, Wetlands and Habitats, Trees of Cayuga County, Bats, Surveying, Success of the Wild Turkey, Beekeeping, Fish Identification, Migrating Birds, Changes in NY Forestland and more. Students from local school districts gathered together at Emerson Park over two days in September. After spending the day at the park, students are asked to write an essay detailing their favorite station at field days. The essays are collected and judged, with the top place winners earning recognition, as well as a voucher for ten pine tree saplings and a bird house to continue their environmental learning.

### Regional Envirothon

The Envirothon is a fun, outdoor, team-based program designed to help High School students better understand their environment through exploration of ecology, natural resource management, and current environmental issues. The Envirothon combines classroom learning with hands-on field experience focused around five major topics:

•Soil and Land Use •Aquatic Ecology •Forestry •Wildlife •Environmental Issues

The Envirothon begins at the local level with four teams in 2012 representing Cayuga County from Moravia, Auburn, and two from Weedsport. These teams competed against 25 teams at a regional level initially, then the winning team (from Moravia) went to compete at the state level. It has been stated that around 95% of students who participate in the Envirothon pursue careers in the environmental field.



The Winning team 'Blue Footed Boobies' from Moravia



## Owasco Lake Watershed Inspection Program



In its fifth full year, The Owasco Lake Watershed Inspection Program (OLWIP) logged close to 600 hours in the field investigating water quality concerns by vehicle and foot patrol, completing 437 total inspections. Of those inspections made, 7 were violations of the Owasco Lake Watershed Rules and Regulations (OLWRR), 4 were violations of the Cayuga County Health Department's Sanitary Code, 5 were violations of the New York State Department of Environmental Conservation (NYS DEC) and 1 violation of the Army Corps of Engineers (ACOE) was also monitored.

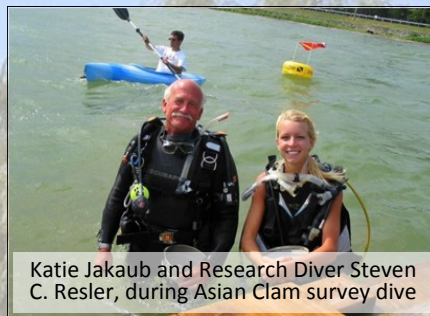
The Program was fortunate enough to be able to hire 3 seasonal watershed inspectors this year. Marty McGuane and Jen Loveless were hired in the spring and during their 12 week employment they completed such tasks as inspecting the entirety of the Mill Creek Watershed, assisting with flow rate calculations, taking part in several outreach and educational events and followed up with landowners on existing situations within the watershed. A third seasonal inspector, Lauren DiLucci, was hired in the fall. Her time of employment focused primarily around storm water events, documenting turbidity in all streams discharging directly to the lake and compiling information for various outreach efforts as well as following up with several on-going watershed inspections.

OLWIP also took part in a 5 day survey of Owasco Lake in the search for Asian clams by assisting research divers from the Darrin Fresh Water Institute. This was the 3<sup>rd</sup> survey completed since the clams were initially discovered in Owasco Lake in 2010. The summer of 2011 saw the first quantitative study of the clams. Results from 2011 showed Asian clams occupying roughly 120 acres of the northern portion of Owasco Lake with densities averaging at 1018 clams per square meter. This past year, the clams covered close to 160 acres of the same area, but their densities fell to just 428 clams per square meter.

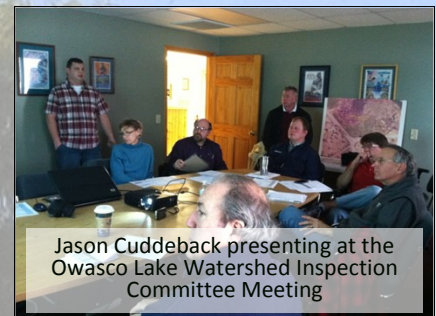
To acquire more information about the Inspection Program and what other projects were completed this year, please visit the Owasco Watershed Network (OWN). The network allows property owners to send the program an email with questions, concerns and even provides them the ability to upload photos regarding their inquiries. You can access OWN by going to [www.owascolake.org](http://www.owascolake.org). And don't forget to 'like' us on Facebook to keep up with the latest happenings within the watershed.



Seasonal Inspectors Marty and Jen complete a flow rate calculation within a segment of Decker Creek



Katie Jakaub and Research Diver Steven C. Resler, during Asian Clam survey dive



Jason Cuddeback presenting at the Owasco Lake Watershed Inspection Committee Meeting

### Education and Outreach within the Owasco Lake Watershed.

This year, the Owasco Lake Watershed Inspection Program worked closely with the Cayuga County Soil and Water Conservation District (CCSWCD) in taking part in various education and outreach events as well as training opportunities. Seasonal Watershed Inspectors Jen Loveless and Marty McGuane assisted CCSWCD's Watershed Program Manager, Sandy Huey and Grazing Specialist, Jason Cuddeback, with both the regional and state environthons. This year at the Annual Conservation Field Days, Jason Cuddeback and Nutrient Management Specialist, John Fraser, taught basic surveying skills, and Katie Jakaub, Owasco Lake Watershed Inspector, taught 6th grade students the importance of healthy wetlands.

The Owasco Watershed Lake Association (OWLA) hosted Jason Cuddeback at several of their 2012 meetings. Jason explained to the group the importance of agricultural best management practices and how they're used throughout the watershed, and Katie Jakaub discussed the program's progress since it's creation in 2007 and what lies in store for the future.

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