



**CHAMPLAIN WATERSHED**  
**IMPROVEMENT COALITION OF NEW YORK**  
CLINTON | ESSEX | FRANKLIN | WARREN | WASHINGTON | COUNTIES

# 2015 Annual Report

Providing a coordinated effort to improve water quality and other natural resources within the New York State Lake Champlain counties through project implementation.



Lake Champlain from Coot Hill, Crown Point, NY

# Water Quality Improvement Project



Clinton County SWCD District Technician Dave Wilfore hydroseeding in Beartown.

A total of \$389,378\* of WQIP Grant funds are being used to implement projects across the watershed. Many of these projects have been identified in the Roadside Erosion Assessment and Inventory that was completed in 2011. The funds are mostly being used to purchase supplies and materials that go into completing the projects. This has included mulch and seed for hydroseeding along roadside ditches that are eroding, which can carry sediments to water sources.



Identifying project locations at a "CWICNIC" (Picnic meeting)

## Department of State Grant

CWICNY received a total of \$400,000\* in 2013 to prioritize watersheds. An advisory committee has met to help guide the process and creating a matrix that ranks the sub watersheds. A wide variety of projects have been identified including those related to agriculture, stream banks, road issues, stormwater management, and septic management across the region. This process will allow for future grant funding for implementation.

## Lake Champlain Basin Program

CWICNY has received \$4,000 in funds from the LCBP to help keep CWICNY organized and operating as a 501(c)(3). These funds were used to help maintain the website, perform annual audits and assist with associated tax forms. CWICNY has also received a grant from LCBP in the amount of \$18,000 to purchase sediment basins. This will help to assist with roadside sedimentation issues in the watershed.

## EM River On the Move

The EM River Model is a visually-stimulating, hands-on tool that can be utilized to demonstrate the natural characteristics and dynamics of stream channels and their response to human disturbance. This "fun-sized" model incorporates miniature versions of culverts, stream protection, bridges, equipment, and animals to create various disturbance scenarios and simulate the natural effects that occur upstream and downstream of the disturbance. The EM River Model can be used for audiences of all ages and educational levels. This past summer, the EM River travelled to nine events across the basin, including a trip down to the NY State Fair! The EM River available to municipalities, schools and associations throughout the Champlain Watershed for public and private events and trainings at no cost. Please contact your local Soil and Water Conservation District or CWICNY for availability and additional information about the model.



**NYS Fair EM River Model with Ag and Markets**  
In August 2015, Chastity and Kristin (Franklin County SWCD, pictured above) and Tiffany and Laura (Essex County SWCD) along with NYS Ag and Markets attended the NYS Fair to demonstrate and display watershed management through stream dynamics using the EM River Model, they represented CWICNY for two days.



Schroon Lake Central School 5<sup>th</sup> Graders learning about stream dynamics and how they can help make streams near them a better place. Tiffany (pictured above) and Laura from Essex County SWCD discussed several topics with the enthusiastic group, including erosion, sedimentation, and pollution.

# County Efforts

## Washington County

The replacement heifers for Red Top Farm were located in two different year round permanent pastures. One location called Red's House with 210 animal units and the other at the Diplock Farm with 130 animal units. The heifers were fed on cement pads with no curbing or roof structures and were allowed free access to the entire stream corridors in the pastures. The Diplock Farm had an excavated hole in the ground at the end of the feeding area that was called a manure storage. It was not engineered and was not able to be certified. The feeding areas in both locations are upslope from Class C(T) tributaries to the Mettawee River. At the completion of this project, all of the heifers from both facilities are now housed in a bedded pack waste storage and transfer system with scrape alleys and a seven-day manure storage, all at the home farm. The system also includes drip trenches, underground outlets, concrete aprons, and an access road. The System keeps the heifers out of environmentally sensitive areas, thereby reducing erosion in the landscape and preventing nutrient and sediment runoff into streams which feed into the Mettawee River. By pulling the livestock out of the hydrologically sensitive areas and containing them in a managed bedded pack situation, these sensitive areas will be remediated and put back into more environmentally sound condition. The farm is able to do a better job with its nutrient management by having runoff contained, less erosion occurring in the landscape, and by making better use of manure as a nutrient source.

Before (below), several resource concerns can be seen. After (right), a covered barnyard helps to reduce pollutants entering the tributaries to the Mettawee River.



## Franklin County

There was an old concrete culvert on site that was cracked, in poor health and beginning to fail, Tropical Storm Irene progressed the failure and eroded away the land base around the culvert on Franklin Falls Hill Road. This created an emergency situation for repair. The Town of Franklin replaced the culvert, installed a dry well and placed an additional culvert on the other side of the catch basin. This repaired the failing culvert and provided an opportunity for pollutants and sediment to be trapped and removed from the water prior to it entering the Saranac River. This project was funded by the WQIP grant.



**Top (Before)**  
 Left: Ditch that conveys sediments into the Saranac River.  
 Middle: Culvert outlet into the Saranac River.  
 Right: Ditch showing large amounts of sediments.

**Bottom (After)**  
 Left: Dry well will collect sediments before entering the Saranac River.  
 Middle: Properly sized culvert moves water from the road ditch effectively.  
 Right: Additional culvert added reduce pressures on the ditch and road.

# County Efforts (cont.)

## Essex County

This summer, Essex County hosted its first 3-day Emergency Stream Intervention training. The first day of the training involves a classroom presentation and a visit to the project site. This was held at the Keene Valley Fire House in the Town of Keene. The original project site selected for the training was on Stlyes Brook in the Town of Keene, which was visited on the first day. Due to uncontrollable circumstances, this project site was not able to be completed. Luckily, a stream bank was in the process of being stabilized on the Boquet River which was used for the remaining days of the training. Although the Boquet River project wasn't the best example for an emergency stream demonstration, many of the same measurements and ideals were comparable. Day 2 of the training took place at the project site, in which attendee's were able to view the project being worked on, how different measurements affected the project, techniques, and other valuable knowledge which was gained. Day 3 of the training involved returning to the completed project site, more classroom training and a general overview of the entire training. The third day was held at the Willsborough Visitors Center in the Town of Willsboro. The event was well attended by 45 individuals from a wide variety of backgrounds, including contractors, highway crews, and several agencies.



Essex County SWCD's Dave Reckahn, District Manager (left) and Laura Benedict, District Technician (right) presenting Day 1 of the 3 Day ESI training to a wide audience.

## Clinton County

Clinton County Soil & Water had an eventful year. Even though there was a complete staff turnover, the District hit the ground running and accomplished a lot. Most of the Districts summer was spent identifying and locating sites for the WQIP grant. By the end of summer, the District had hydroseeded four high priority sites as well as many other sites that were located along the way. The District also assisted the Town of Saranac with a badly eroded ditch. While out and about, the District utilized their time identifying sites for the DOS Grant for future implementation.



Clinton County SWCD's Dave Wilfore, District Technician, adding hydromulch (left) and pumping water (right) into the hydroseeder to seed roadside ditches.



## Warren County

2015 was a busy time for Warren County SWCD in the Champlain basin. Through grants from the NYSDEC and the LCBP, the District office worked on stormwater management and erosion control, habitat improvement and invasive species.

**Exit 22 Stormwater/Sediment Reduction Project - Village of Lake George:** The Village DPW, Warren County SWCD, the Lake George Waterkeeper, Jarrett Engineering, LLC, Jim Sutherland (Retired NYSDEC Research Scientist) and the NYSDOT worked together to develop a stormwater filtration system for a section of Route 9 that currently flows directly into English Brook. This is located at the cloverleaf of Exit 20 of the Adirondack Northway. Stormwater will go through several treatment sections (rock, grass and a forebay), before entering a shallow stilling basin. It will then flow back to English Brook and there is no intent to have standing water at this location for an extended period of time. Native wildflower areas were planted in the early winter and in 2016, trees and shrubs suitable for the site will be planted to add to the site's aesthetic value. Additional support for the project occurred in the form of trucking from numerous local municipalities. Funding for this project was provided partially through the NYSDEC and many volunteer hours.

**Lake Champlain Habitat Improvement:** In 2015, the LCBP and the New England Interstate Water Pollution Control Commission awarded the District a habitat improvement grant. The goals of the program were to install habitat structures in and along ponds and tributaries of the Lake Champlain Watershed. The purpose of the program was to improve and enhance habitat in the watershed's aquatic and riparian segments altered by urban development, channel straightening and stormwater runoff impacts. Aquatic habitat improvements in the Towns of Bolton, Lake George, and Queensbury were accomplished with native bank plantings, amphibian habitat structures, fish habitat and passage augmentation and migratory bird structures. Following the award of the grant, work began with both private and municipal landowners to gain access for work within and along the selected waterways. The proposed work was enthusiastically received by both private landowners and municipal representatives. A total of 57 improvements and structures were installed in the riparian and aquatic habitat of Warren County.

**Purple Loosestrife Management:** Purple Loosestrife was introduced into the US over 150 years ago and forms dense monocultures that change the ecology of the native systems, specifically wetlands. This invasive alters natural systems and can drive common waterfowl away and dry up wetlands and shallow ponds. In order to combat this pest, for over 25 years, Purple Loosestrife Beetles (*Galerucella sp.*) that feed on this plant, have been utilized across the country. In 2015 the Purple Loosestrife Management Program, funded by the LCBP, was initiated and has been a great success working with numerous volunteers, schools and organizations. The program consisted of collecting Loosestrife root wads in early spring, planting the root wads in miniature wetlands made out of small wading pools, collecting the beetles, rearing the beetles to increase populations, and releasing the beetles into Loosestrife infested areas of the basin. The Glens Falls 8th grade Environmental class reared beetles and took care of the hatcheries, making sure the plants had water and the beetles had plenty of Loosestrife stalks to feed on. A total of 29 plants were inoculated with 500 beetles and approximately 5,800 beetles were released into two infested wetlands of the Halfway Brook Watershed in Queensbury. Prior to releasing the beetles, the selected infested wetlands near Halfway Brook were mapped to document the progress the beetles will have on removing this invasive species. Year two of the program will continue and volunteers will continue to help reclaim our wetlands in the Lake Champlain Basin.



Above: Larva  
Left: Rearing pools for Purple Loosestrife Beetles  
Middle: Beetles ready to munch!  
Right: Purple Loosestrife being eaten by beetles.

# Water Quality Coordinating Committee Actions

As an active water quality member of CWICNY, the Lake George Association would like to share a couple of stormwater projects that were completed this past year.

**Usher Park Stormwater Retrofit:** The Lake George Association (LGA) and Warren County Soil & Water Conservation District (WCSWCD) had an opportunity to further protect Lake George water by installing a major water protection project at Usher Park that was designed to stop stormwater before it gets near the shoreline. One of the Lake's biggest overall problems is stormwater flowing across developed areas (roadways, parking lots, manicured lawns and sidewalks) and then into the Lake, carrying pollutants, nutrients and sediment into the Class AA-Special water. LGA installed three dry wells; a single 4' high by 8' wide dry well at the top of the hill and two additional dry wells of the same size at the bottom of the hill. Two 12' long trench drains purchased by the town of Lake George were added to capture the stormwater and direct it into the dry wells at those locations. The retrofit for the site was over-designed to handle the large and intense rain events we have been experiencing in recent years. A recent major rainstorm in February showed that the structures performed as expected, capturing stormwater and diverting it into the dry wells to be slowly infiltrated into the ground. Each installed dry well will hold over 1,400 gallons of stormwater.



Trench drain to divert water to dry wells before (left), during (middle), and after (right).

**Sediment Basin Cleanouts:** The LGA and WCSWCD coordinated the clean out of seven sediment basins around Lake George. The DPW departments for the towns of Bolton, Hague, Lake George and the Village of Lake George were all involved in the project. The sediment basins were created to capture excess stream sediment before it reaches Lake George. Over a two week period last fall, using a 65' long reach excavator and trucking from the towns, we removed over 1,400 cubic yards of material. All of the sites were graded, seeded and mulched or hydroseeded by the LGA and WCSWCD after the cleanouts were completed.

**Dickey John Purchase:** As part of the LGAs commitment to protect Lake George water and fight against any water quality degradation, the Lake George Association purchased salt-spreading equipment for the Town of Lake George. The purchase was part of a long-term commitment LGA has toward reducing the amount of salt being used on roads in the watershed. In a 2013 forum, highway superintendents and crews developed a list of needs to better manage deicing practices for their departments to help them better monitor and reduce the volume of salt they are using to clear the roads. The list included the need for improved equipment, including automated salt spreaders for vehicles. The purchase of the Dickey-john Control Point System for the Town of Lake George was met with the purchase of another for the Town by WCSWCD – meaning that the Town can now precisely control the amount of salt being spread on two of its three main plow routes.

Diamond Point, Lake George



# Department of Environmental Conservation Grant

Implementation of *The Lake Champlain Watershed Roadside Erosion Assessment and Inventory* has begun thanks to a \$292,000 grant from the NYS DEC. Work performed under this grant in 2015 includes:

- Eight acres of hydroseeding by the Essex County SWCD in the Towns of Westport, Chesterfield, Keene, North Elba, Westport and Essex, working with staff from the Town and County DPW's, as well as NYS DOT. Staff at the SWCD also performed project design for an erosion and sediment control project in the Town of Ticonderoga that is slated for construction in the spring of 2016, and installed erosion control mats on a roadside in the Town of Keene. SWCD staff has also been working with several highway departments reassessing priority sites identified in the Erosion Assessment for remediation in 2016.
- The Franklin County SWCD worked with the Town of Franklin on the Franklin Falls Road Drainage Structure Improvement project to replace a culvert that was actively eroding the roadside adjacent to the culvert. A new, properly sized culvert was installed by the Town of Franklin DPW.
- Clinton County SWCD hydroseeded five sites in the Towns of Beekmantown, Ausable, and Saranac. The Town of Saranac also installed a catch basin in a ditch on Nashville Road (pictured) to reduce sediment movement from the ditch.



## Tradeshaw



The 2015 North County Stormwater Tradeshaw and Conference was held on October 15 at the Great Escape Lodge in Queensbury, Warren County. Over 100 local engineers, landscape architects, code enforcement officers, and municipal staff and leaders attended the day-long training that included presentations on climate change, stormwater retention, stormwater system vulnerability studies, bioretention area implementation, NYS DEC's General Permit, Stormwater Design Manual and Blue Book Updates and the Center for Watershed Protection's new Watershed Optimization Tool. Thirteen product vendors also attended the Tradeshaw. Grant funding assistance for this year's Tradeshaw was provided by a local implementation grant from the Lake Champlain Basin Program.

## Pictures Across the Basin



Black gum tree



Critter counting



Pink Lady Slipper

Belted Galloway Cows



Rush Pond

## Executive Board

- Dave Reckahn (Essex County SWCD), President
- Beth Gilles (LC/ LG RPB), Vice President
- Jim Lieberum (Warren County SWCD), Treasurer
- Randy Rath (LGA), Secretary



Peter



Dave



Chastity



Jim



Corrina

## CWICNY Members

### Soil and Water Conservation Districts (SWCD)

- Clinton County
  - Peter Hagar
- Essex County
  - Dave Reckahn
- Franklin County
  - Chastity Miller
- Warren County
  - Jim Lieberum
- Washington County
  - Corrina Aldrich

### Water Quality Coordinating Committees (WQCC)

- Clinton County
  - Kelley Tucker
    - Ausable River Association
- Essex County
  - Tiffany Pinherio
    - Essex County SWCD
- Franklin
  - Kristin Ballou
    - Franklin County SWCD
- Warren
  - Randy Rath
    - Lake George Association
- Washington
  - Ben Luskin
    - Washington County SWCD

### Lake Champlain/ Lake George Regional Planning Board (LC/ LG RPB)

- Beth Gilles



Kelley



Tiffany



Kristin



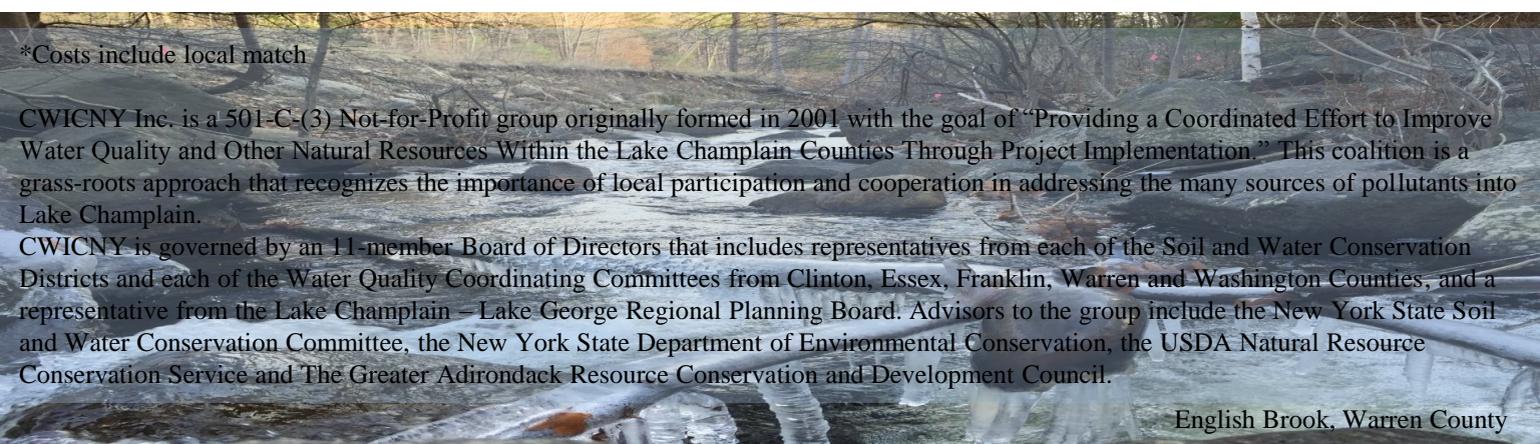
Randy



Ben



Beth



\*Costs include local match

CWICNY Inc. is a 501-C-(3) Not-for-Profit group originally formed in 2001 with the goal of "Providing a Coordinated Effort to Improve Water Quality and Other Natural Resources Within the Lake Champlain Counties Through Project Implementation." This coalition is a grass-roots approach that recognizes the importance of local participation and cooperation in addressing the many sources of pollutants into Lake Champlain.

CWICNY is governed by an 11-member Board of Directors that includes representatives from each of the Soil and Water Conservation Districts and each of the Water Quality Coordinating Committees from Clinton, Essex, Franklin, Warren and Washington Counties, and a representative from the Lake Champlain – Lake George Regional Planning Board. Advisors to the group include the New York State Soil and Water Conservation Committee, the New York State Department of Environmental Conservation, the USDA Natural Resource Conservation Service and The Greater Adirondack Resource Conservation and Development Council.