



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

# 2018 Annual Report

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

## 2018 Legislative Tour



On September 20, 2018, CWICNY hosted a tour of projects in the Town of Franklin, Franklin County. This tour was conducted to showcase some of the important projects implemented to reduce nonpoint source pollution along with the funding sources used and the goals of the projects. The tour consisted of seven stops showcasing the 2018 Rural Road Active Management Program (RRAMP), Oregon Plains Road Project, Roadside Erosion Assessments and Control Program, Roadside Stormwater Program, WQIP Culvert Replacements, North Atlantic Aquatic Connectivity Collaborative (NAACC) Assessments and the Rain Harvester Program. Attendees included representatives from NYSDEC, NYSCWCC, LCBP, County Legislators, State Assembly, State Congress, Regional Planning Boards, NEWIPCC, NYS Ag and Markets, Town Highway Departments, Soil & Water Districts and CWICNY. Thank you to the 28 people that made the trip to Franklin County to see all of the great projects that have been implemented over the past few years!



## Lake Champlain Non-Point Source Pollution Subwatershed Assessment & Management Plan

In March of 2018, the Lake Champlain – Lake George Regional Planning Board and CWICNY members released the Lake Champlain Non-Point Source Pollution Subwatershed Assessment and Management Plan. This plan was created to assist local and regional resource managers in identifying targeted projects and programs for water quality protection and improvement that, if implemented, will reduce phosphorus inputs into surface waters from an array of non-point sources. Those that are of most concern include stormwater runoff from urbanized areas, agricultural operations, streambank and roadside erosion, and aging public and private wastewater infrastructure.

To achieve the goals set forth in the plan, the 79 HUC-12 subwatersheds within the New York portion of the basin were ranked via a point system based on 15 parameters within five categories; water quality, geology, human use, phosphorus pollution vectors and land use and cover. Through this process, 19 subwatersheds were identified as high priority for implementation of phosphorus reduction work. In total, 263 on-the-ground projects and outreach programs were identified, totaling \$187,000,000 in funding needs. These projects range from installation of grey and green infrastructure projects to reduce stormwater runoff, to livestock exclusion fencing, to streambank restoration and implementation of private community septic systems. Also included in the plan are several regional initiatives.

This plan was prepared with funding provided by the NYS DOS under Title 11 of the Environmental Protection Fund through the Town of Moriah.

## Covering the Basin- Cover Crops Hold Soil in Place to Keep the Lake Blue

What exactly are cover crops and how do they help keep New York's Lake Champlain water blue? Generally, a cover crop is planted to hold bare soil in place once a commodity crop such as corn or soybeans is harvested. The cover crop is not thought of as a commodity crop. Cover crops take up nutrients that may have been left in the soil from the previous harvested crop, suppress weed seed germination, and provide living roots that help feed the many millions of soil microbes that increase the soil health factor. Some of the common cover crops planted in this region include annual ryegrass, cereal rye, vetch, cow peas and radishes.

A cereal rye cover crop will germinate quickly and even a sparse stand can provide soil erosion benefits, but due to the shorter growing season in the Northeast, combined with the season lateness of the harvests, many farms had not tried using cover crops. In



Clinton County SWCD and Hidden View Farm are happy to put up a sign.



Aerially planted cover crops in early spring in Essex County.

2013, an NRCS funded initiative was implemented to aerially apply cover crops into standing corn on 1400 acres in Clinton, Essex and Washington Counties. A helicopter applied cover crops into standing corn to assist with the timing issues of getting the cover crop off to a good start before the corn was harvested. The Soil and Water Conservation Districts in the Lake Champlain Basin have purchased no-till drills to assist farms with their efforts to increase soil health factors while helping to limit potential phosphorus from escaping the farm, which can contribute to algal blooms. Most farms are happy to report the reduction in herbicide costs, especially where they can recoup cover crop seed costs by using the forages for late spring feed supplementation.

In 2018, with funding supplied through the Lake Champlain Ag Practices specialist program in NY, the Clinton and Essex County SWCDs provided a cover crop incentive to plant 225 acres of cover crops with their no-till drills in fields with a direct connection

to water flowing into Lake Champlain. There are other programs to support the financial costs of planting cover crops and farmers are continuing to increase the acreage of cover crops being planted due to the soil health benefits.

## Lake Champlain Watershed Roadside Erosion Plan Implementation – Phase II

In 2018, staff at the Lake Champlain – Lake George Regional Planning Board applied for funding from the NYS DEC Water Quality Improvement Program grants to continue work on reducing roadside ditch erosion throughout the watershed. The \$316,500 grant, awarded to the Franklin County SWCD, will assist in purchasing hydroseeding materials, rolled erosion products and sediment basins to be installed throughout the watershed. Funding will also be utilized to update the Lake Champlain Roadside Erosion Assessment report to remove projects that have been implemented and add new projects.





## Rainwater Harvesting Project

The Rain Harvester Project was initiated to capture roof runoff from a school or educational facility in each of the five counties on the New York side of the Lake Champlain watershed. The project was funded by the Lake Champlain Basin Program (LCBP) Steering Committee and was supported directly by an agreement issued by the New England Interstate Water Pollution Control Commission (NEIWPCC).

Five locations were selected for the Rain Harvester Projects. **Essex County** (Westport School – two 360 Gallon cisterns and Lake Placid High School and Middle School each with two 50 gallon tanks), **Franklin County** (Adirondack Education Center – two 250 gallon cisterns) and **Warren County** (Up Yonda Farm – a 250 gallon tank and a 150 gallon tank). Colden Lawrence, now a Senior Natural Resource Science Student at the Adirondack Educational Center, was the project supervisor for the two cisterns at the school. His



*Rainwater Cistern at Adirondack Education Center in Franklin County*



*Rainwater Cistern at Up Yonda Farm in Warren County*

role was to plan the complete set up of the cisterns, including working with school administration, students and teachers from NRS class, Franklin County Soil & Water, and building/grounds personnel. One of the cisterns was set up to water recently planted apple trees on the school property. Colden said he drew on things he learned in NRS class when implementing this project, "Cisterns help reduce the use of public water and [the amount of] fresh water resources from the ground water. This process can conserve many gallons of public drinking water. In order to water the apple trees efficiently, we had to consider different irrigation techniques. In NRS class we learned how slope, aspect, soil types and soil factors, and how water needs of the

trees within the orchard effect how to properly water the apple trees". The ten rain harvesting systems are successfully collecting runoff that is now being used to water gardens, trees and lawns. Utilizing rainwater collected from the cisterns reduces the amount of municipal water that is used and reduces the volume of runoff entering the stormwater system. The project shows that this process can be used by homeowners and businesses alike to reduce stormwater and remove a tremendous burden on our stormwater infrastructure.

## North Country Stormwater Tradeshow

The 14<sup>th</sup> annual North Country Stormwater Tradeshow and Conference was held October 18, 2018 at the Hiland Park County Club in Queensbury, NY. Presentations included Case Studies on Green Infrastructure from Pete Hanrahan, PE of EJ Prescott, Non-Stationarity in the Design of Hydraulic Structures in Stormwater Management from Alvaro Gonzalez of The Chazen Companies, Flood Resiliency and Hardening: Techniques for Smart Growth from Sean Gannon, PE, and Jane Nicholson-Dourdas, PE of O'Brien & Gere, and the NYS MS4 Draft Permit Update from Ethan Sullivan of the NYS DEC. Several vendors also displayed the most innovative and updated products in stormwater management. The 15<sup>th</sup> annual North Country Stormwater Tradeshow and Conference will be held October 17, 2019, location to be determined.





## Rural Road Active Management Program 2018 Project

The CWICNY Rural Road Active Management Program (RRAMP) allowed Essex County to fund and implement several important projects in 2018. The Dugway Road Overflow Protection project consisted of putting in a culvert for improved drainage and placing rock in the ditch to slow water and reduce silt. Dugway road and a landowner's driveway had been severely washed out due to excessive runoff from the steep woodland across the road.

Essex County Soil and Water Conservation District worked with the Town of Chesterfield Highway Department to place a culvert under Dugway Road. The culvert is angled from the base of a heavy runoff area to a drainage across the road. The water flowing through the culvert is slowed at it's outlet by rocks that will also prevent erosion at the site. The drainage can handle the extra runoff and will allow the water to slow and drop silt before reaching the nearby Ausable River. The culvert now intercepts much of the runoff and has alleviated the problem.



*Dugway Road Overflow Protection Project, Town of Chesterfield, Essex County*

### Town of Black Brook

A degraded and undersized culvert on the Forestdale Road in the town of Black Brook was in dire need of replacement. The culvert caused severe erosion, undercutting banks and headwalls. The culvert threatened the road structure and had viable potential to flood during the right conditions. Surveys were taken of the various ditches entering and exiting the culvert, as well as road and culvert grades. The gathered data was entered into HY-8 to create a new and appropriately sized and shaped culvert. A pipe arch style culvert 57" wide and 38" high was chosen. The new culvert is sized to handle stream flow volumes on Black Brook. It was installed with the appropriate sub-base and black topped. Riprap was installed at the inlet and outlet to help protect banks and slow velocity. The district hydro seeded the disturbed areas after completion to establish vegetation and improve water quality.



### Town of Franklin

The oxbow of Lyon Brook was eroding the stream bank which is supporting Oregon Plains Rd. This project included the installation of rock and alder stakes to stabilize the stream bank and prevent future erosion. Rip rap and native deep root plantings were used to stabilize approx. 64 lineal feet of bank between Lyon Brook and Oregon Plains Road. The bottom layer of stone was embedded so as not to be undermined



by the brook. The material was sloped at a 1:1 slope to prevent excessive fill from being placed in the stream channel. The planting was interspersed amongst the rock to help hold it in place.



## Regional Conservation Partnership Program

2018 marked the last full year of the Greater Adirondack Environmental Enhancement Program. This grant program has provided technical assistance planning funding to area farmers for various planning efforts, as well as Financial Assistance for implementation projects. CWICNY partners have also been working on a bi-state RCPP grant that was awarded to Vermont. Farms in Washington and Essex Counties have received financial assistance for implementation projects in the South Lake B subwatershed.

## Waterfront Septic Outreach and Education Grant

In 2018, CWICNY applied for and was awarded a grant from the Lake Champlain Basin Program to perform education and outreach programming related to onsite septic systems in waterfront communities. Soil and water conditions near shorelines include thin, rocky or clay soils as well as high groundwater tables which make the traditional septic systems in these areas much less efficient at treating waste. Waterfront septic systems' proximity to the lake also makes them a high concern for contributing to lake pollution. Nutrients, especially nitrogen and phosphorous, which can come from human waste, soaps, detergents, cleaning agents, etc., leak from inadequate and failed septic systems into nearby water bodies. Excess nutrients in the water cause issues such as excessive weed growth, algal blooms, eutrophication, and transmission of infectious viruses and bacteria to local water bodies.

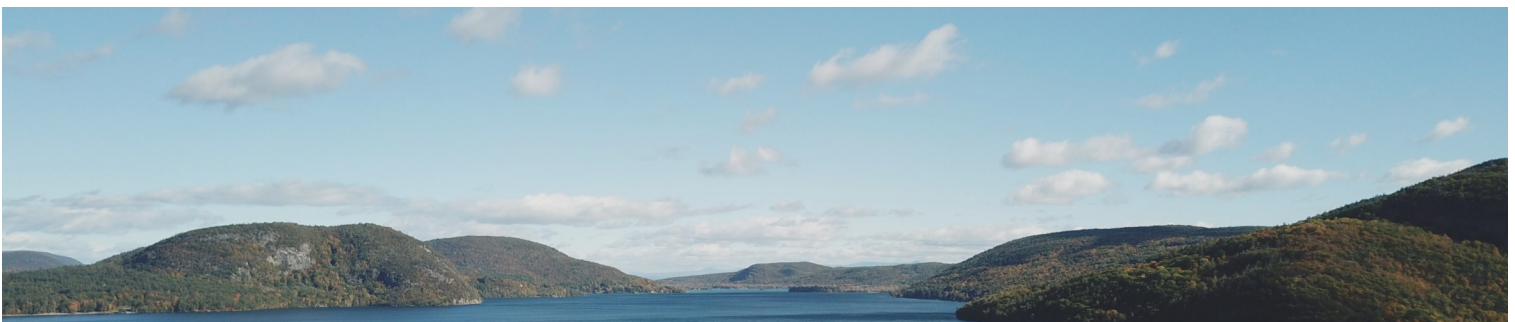
The project's goal was to educate waterfront septic owners about their responsibility in maintaining their systems and the importance of proper septic system function on the health and water quality of the lake and ultimately reduce phosphorus inputs into Lake Champlain.

Each member of CWICNY selected a lake or waterfront community in their county where they could reach out to residents and provide information regarding local septic system regulations, septic location, maintenance for homeowner septic systems, and the impacts of an impaired system on public health and local water quality.

Over the course of 2018, 4 outreach events were held. A total of 106 waterfront residents attended the presentations and were supplied with packets of useful information and septic-friendly water saving devices.



*Septic Workshop in Essex County*



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.

# CWICNY Representatives

## Executive Board

Corrina Aldrich, President

Kristin Ballou, Vice President

Jim Lieberum, Treasurer

Randy Rath, Secretary

## 2018 CWICNY Members

### Soil and Water Conservation District:

Chastity Miller, Franklin County

Peter Hagar, Clinton County

Dave Reckahn, Essex County

Jim Lieberum, Warren County

Corrina Aldrich, Essex County

### Water Quality Coordinating Committee:

Kristin Ballou, Franklin County

Kelley Tucker, Ausable River Association, Clinton County

Robert Kalbfliesh, Washington County SWCD

Randy Rath, Lake George Association, Warren County

Alice Halloran, Essex County SWCD

### Lake Champlain/ Lake George Regional Planning Board:

Beth Gilles



Visit our Website at <https://www.cwicny.org/>