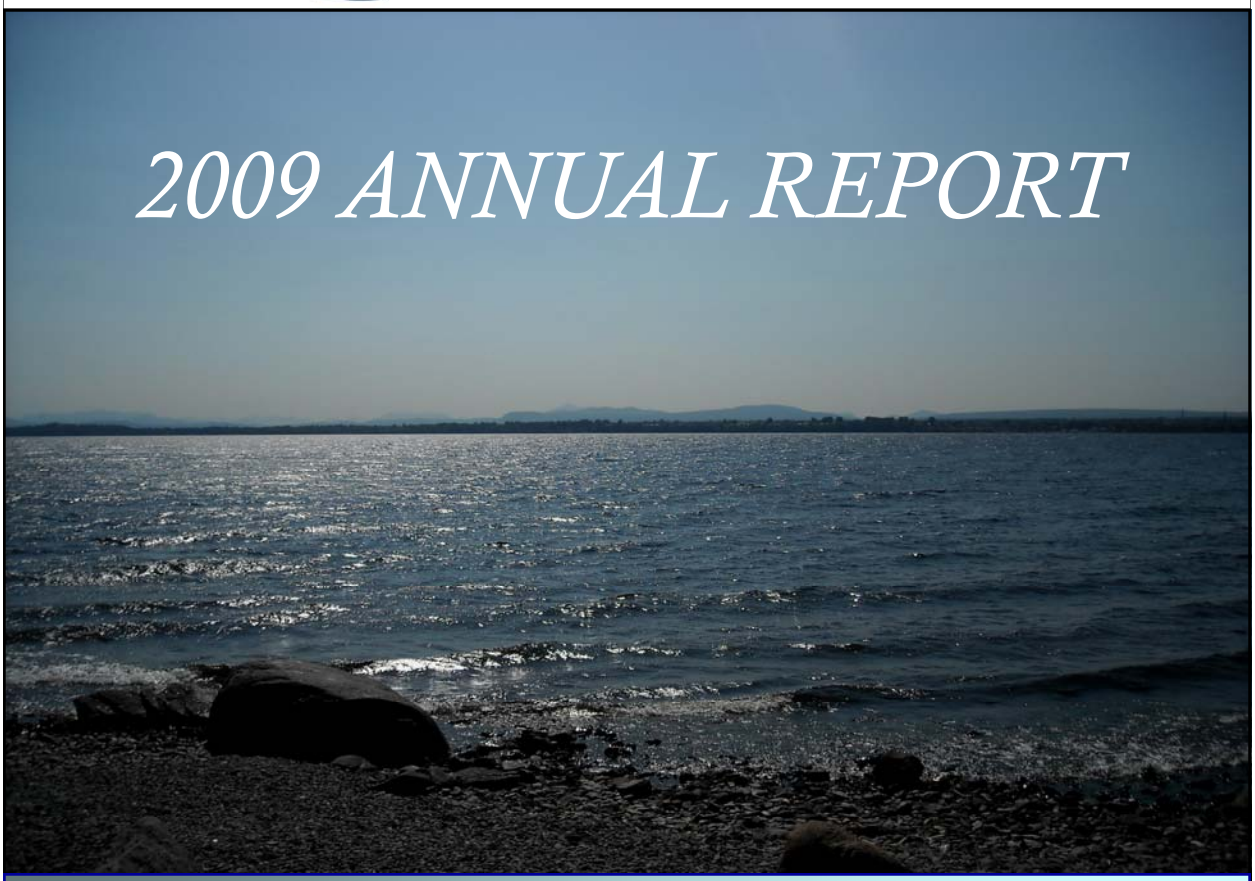
CHAMPLAIN WATERSHED
IMPROVEMENT COALITION OF NEW YORK
CWICNY

2009 ANNUAL REPORT



CWICNY MISSION: ***To provide a coordinated effort to improve water quality and natural resources within the New York Lake Champlain Counties through project implementation.***

The Champlain Watershed Improvement Coalition of New York (CWICNY) was created in 2001 with the purpose of getting cost-effective conservation projects "on the ground" on the New York side of the Champlain Watershed. The member organizations of CWICNY have varied backgrounds in agriculture, hydrology, conservation, design, construction, planning, forestry and much more.

CWICNY is a 501-c-3 nonprofit conservation organization which identifies specific water quality and natural resources issues within the Lake Champlain Watershed and works to directly solve these problems with communities, farmers and other landowners in the watershed. All grants and funding which CWICNY receives, goes directly towards the undertaking of these projects to help improve Lake Champlain.

Coordinators' Cove - Tackling Watershed Issues

The Champlain Watershed Improvement Coalition of NY had a busy and successful year that was filled with a variety of new endeavors. Of the many projects and programs completed this years highlight came in the form of the announcement of the federal *American Reinvestment and Recovery* (ARRA) planning grant for NY's Lake Champlain Watershed.

Riverbank erosion

The ARRA grant was applied for, in cooperation with, CWICNY member and partner Lake Champlain-Lake George Regional Planning Board. Both the Regional Planning Board and CWICNY are excited to have been awarded funding to plan for water quality improvement projects while creating and retaining local jobs.

The new ARRA funding will support efforts over the next few years to identify and assess major areas throughout the watershed which are experiencing chronic erosion problems. We hope the data collected will lead to future implementation funding to remediate and stabilize critical areas contributing to high levels of sediment in local waterbodies. Additionally, this project will help to foster a basin-wide road ditch stabilization program.


Barnyard runoff problems

Thanks to efforts by NY Senator Betty Little and Assemblywoman Teresa Sayward, CWICNY has received a 2nd round of funding through the New York State *Aid to Localities* program. This funding will be utilized through 2013 to implement small-scale natural resources improvement projects throughout the watershed.

Senator Little has and continues to be, a strong advocate for improving and protecting water quality as well as the natural resources of the Adirondacks and Lake Champlain.

Aid to Localities funding has allowed the five Soil and Water Conservation Districts (SWCDs) and the five Water Quality Coordinating Committees (WQCC) in the NY Champlain watershed to assist municipalities and non-profit conservation groups with stormwater management, invasive species control, on-site septic system improvements, agricultural plastics recycling, streambank mitigation and sediment reduction projects. In addition to project support, CWICNY has further utilized *Aid to Localities* funding as cash match to obtain federal grants.


Roadside ditch erosion

CWICNY looks forward to continued collaboration with our local politicians (NYS Senator Little, NYS Assmblywoman Sayward, NYS Assemblywoman Duprey, US Senator Gillibrand) and partners in 2010! Our collaborative efforts to protect Lake Champlain and its resources continue to evolve and progress!

- Drew Snell, CWICNY Coordinator

CWICNY PROJECT HIGHLIGHTS - 2009

The following projects are administered by CWICNY and implemented by its member organizations. Much of the funding has been provided through the EPA's Targeted Watershed Program and NYS Aid to Localities grants.

Poultney River Channel Restoration & Riparian Buffer, Washington County

Streambank failure on Illsley property, Poultney River

Richard Illsley, a riparian landowner in Town of Hampton, was losing several feet of land annually along a 350' reach of the Poultney River near his home in Washington County. As a result of the severe erosion occurring, tons of sediment was being deposited into the river, negatively impacting macroinvertebrate and trout habitat.

The Washington County Soil and Water Conservation District worked with Mr. Illsley and his contractor, Doug Wood, to strategically place 3 rock 'vane' structures in stream. The vanes reduce and deflect the river's energy away from this section of eroding bank.

Ultimately these structures will considerably reduce the phosphorus loading, bank erosion and sedimentation occurring at this location. The rock vanes will also create small, deep water pools while increasing dissolved oxygen levels helping to improve trout habitat.

Installation of Rock Vanes, Illsley property

"This is conservation on the land" - Joe Driscoll, Washington County SWCD

In addition to the in-stream work, this project included the installation of 60' of heavy slate for slope toe protection just beneath the rock vanes. The added protection will provide additional bank stability as the river channel transitions to a naturally stable state.

Final Stabilization View, Illsley property

To further enhance and complete this project, the landowner agreed to establish and retain a 25' wide buffer strip which was seeded and mulched immediately following construction. A tree and shrub planting to complete the buffer is scheduled for April, 2010.

CWICNY and the Washington County SWCD utilized the *Aid to Localities* funding program to cost share this stream protection project.

Proper nutrient and manure management on farms plays a major role in allocating and reducing the phosphorus loading off fields to nearby waterbodies. CWICNY, its partners and landowners work continuously to achieve phosphorus reduction from agricultural runoff.

Mettawee River Watershed, Red Top Farm Ag Waste Storage Project, Washington County

Red Top Farm is a medium-sized dairy operation located in close proximity to the Mettawee River, a major tributary of southern Lake Champlain and a productive cold water fishery.

The farm was faced with closing an inadequately sized earthen storage lagoon, which was constructed in permeable soils and threatened surface and ground water.

CWICNY and the *Targeted Watershed Program* funded a new environmentally sound, steel storage facility known as a 'Slurrystore'. This impermeable containment facility will enable Red Top Farm to safely retain a nutrient rich manure and milk center waste slurry until it can be spread on the fields. Optimum soil moisture and weather conditions are necessary for land spreading in accordance with the farm's Comprehensive Nutrient Management Plan (CNMP).

The newly installed agricultural waste storage facility is a key component to implementing the farm's nutrient management plans, controlling runoff pollution, and effectively utilizing nutrients for crop uptake.

Outer ring base of slurry store constructed

Slurry storage unit.

Boquet River Watershed, Bigelow Farm Heavy Use Protection Project, Essex County

The Bigelow Dairy Farm, located on the banks of the Boquet River just south of the small hamlet of Boquet, has completed implementation of a heavy use area protection project. The goals of this project were to construct a level, stable pad for plastic feed storage bags and to reduce the runoff of sileage leachate from plastic agricultural storage bags and sediments from heavy equipment-disturbed soils.

Originally, the projects' cost-share funding (through Natural Resources Conservation Service EQIP Program) provided assistance for the installation of a 90' X 200' heavy use pad, constructed of local wollastonite material placed on top of geotextile fabric. The primary design was for wet weather conditions only. Additional funding through CWICNY and the *Targeted Watershed Program* was used to expand the pad area.

The additional EPA funding provided cost-share dollars to increase the size of the pad by an additional 75' x 300', resulting in the stabilization of the entire feed storage area of the farm, further reducing runoff. The pad will also make it much easier for the farm to collect and recycle the used plastic.

Failing and aging municipal sewage treatment plants and residential on-site septic systems contribute a significant share of pollutants including phosphorus to Lake Champlain. Efforts are underway to curb the impacts of these basin-wide infrastructure degradations.

"Black Ash" Tertiary Treatment Project, Town of Willsboro, Boquet River, Essex County

After 16 years of planning, theorizing , and designing, construction began in 2009 at the Sewage Treatment Plant in Willsboro! The formation of an extremely beneficial and unique tertiary treatment on the bank of the Boquet River had finally taken shape.

The site was cleared and fill was brought in to bring the project site up to the design specifications. After the site grade was achieved, the river bank was shaped for rock placement. With the bank stabilized, construction began on one pre-treatment and two treatment cells.

The pre-treatment cell is composed of various sizes of stone from 3" to small fine particles. The pretreatment is designed to remove any remaining solids left in the effluent after it leaves the existing sewage treatment plant.

The treatment cells are filled with wollastonite (material that is similar to filtering soils in a septic system leach field) to remove remaining phosphorous in the effluent leaving the sewage treatment plant. Conveniently, truck loads of wollastonite material were transported from the stockpiles at the Willsboro NYCO mine, 3 miles from the site.

The system also includes a 'gravity dosing pulse' feature which sends effluent upward through the treatment bed. The treated effluent from this process will then be discharged into the river with an estimated 80-90% additional phosphorous removed. The ultimate goal of this project is to provide additional phosphorous reduction from municipal effluent to meet more stringent DEC and Total Maximum Daily Load (TMDL) guidelines and to reduce phosphorus loading in Lake Champlain.

The wollastonite and the rock for river bank stabilization was generously donated and delivered by NYCO to assist the town of Willsboro in meeting the in-kind requirements for grant funds including the EPA *Targeted Watershed* program.

The final phase of this project, to be completed in the spring of 2010, will be planting of wetland plants on the treatment cells to provide additional nutrient uptake . This successful project was made possible through the cooperation of local, state and federal official and agencies and a great deal of thanks goes to all those involved.

Construction of treatment cells, Willsboro Sewage Treatment Plant,

Construction of treatment cells, Willsboro Sewage Treatment Plant

Construction of Boquet Riverbank stabilization, Willsboro Sewage Treatment Plant

Glen Lake Septic Pumpout and Education Program, Warren County

Glen Lake maintains the most densely populated lakeshore in all of Warren County, draining into Lake Champlain's southern end. All seasonal and year-round houses have private septic systems in close proximity to the lake. In most cases, aging septic systems can fail if not properly maintained. Failing septic systems are likely to contribute large quantities of phosphorus to nearby waterbodies resulting in a degradation of water quality .

Through the *Targeted Watershed Program* the Soil and Water Conservation District of Warren County offers a voluntary, 50% cost-shared septic pumpout, on-site inspections and water conservation kits to all homeowners within 300 feet of Glen Lake.

To date, 72 septic systems have been pumped out and inspected, and the program continues to grow in popularity. This project has had great support from the lake residents, the Glen Lake Protective Association and the Town of Queensbury.

Whallonsburg Grange Septic Improvement Project Boquet River Watershed, Essex County

Boquet/Ausable River Watershed

The Whallonsburg Grange Hall is a popular, year-round community center that provides many benefits to residents and visitors throughout the Boquet River watershed. The Grange Hall, located in the Town of Essex, has a maximum use capacity of 185 people.

In the recent past, the Hall has been used for concerts, plays, workshops, classes, lectures, meetings, and fitness programs. The current septic system servicing the Grange Hall is very old, undersized, not functioning properly and in need of replacement to accommodate groups. As a result the Grange has been forced to use porta-potty services during events. Porta-potties are not considered an acceptable long-term solution in terms of water quality and phosphorus reduction in Lake Champlain. The Boquet River Association in cooperation with CWCNY will use the *Targeted Watershed Program* funding to offset the cost of purchasing a 1000-gallon, intermittent usage -dosing septic system, to remediate the failing, antiquated system.

Ausable River Pump Out Program, Essex County

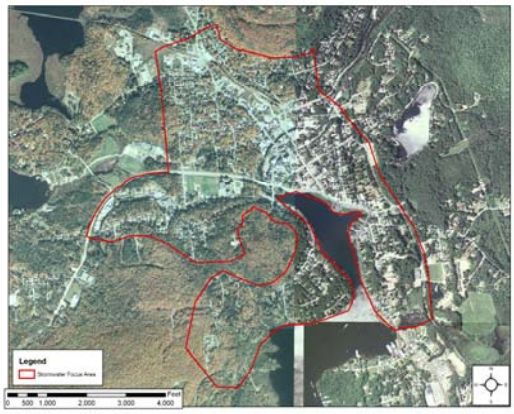
Pumping a residential septic tank

The Ausable River Watershed is renowned for its high water quality and abundant aquatic habitat. However, failing septic systems from homes built adjacent to the river continually threaten to compromise the water quality of the river.

Utilizing CWICNY and *Targeted Watershed Program* funding, the Ausable River Association has developed a septic pump-out cost share program similar to that of Glen Lake in Warren County, providing 50% of the total cost. To date, the project has completed 32 pump-outs with 3 identified failed systems.

Stormwater runoff contributes huge quantities of phosphorus to Lake Champlain and the waterbodies that drain into it. Efforts continue throughout the watershed to contain and/or filter the runoff from urban areas with aging infrastructures

Saranac Lake Stormwater Planning Project, Franklin County



An Aerial photo of the Village of Saranac Lake. The red delineation line indicates the extent of ongoing stormwater planning throughout the Village.

The primary water quality focus in the northwestern portion of NY's Lake Champlain watershed is urban stormwater in the Village of Saranac Lake. During 2009, a collaborative effort with CWICNY, the Franklin County SWCD, Saranac Lake Community Development and Paul Smith's College began the development of a comprehensive stormwater management plan. The number one water quality impact identified in the plan as was urban stormwater runoff.

The office of Community Development , together with the Department of Public Works, utilized their technical knowledge to collect infrastructure data using an advanced GPS unit. The data collected is now being used to spatially map the inlets and outfalls of the stormwater system in the village.

Paul Smith's College Senior Capstone students and the Adirondack Watershed Institute have contributed many hours in 2009 to the development of the Village of Saranac Lake Stormwater Plan. The water sampling completed by the students focused on main outfalls emptying directly into the Saranac River which winds through the Village. This data has provided baseline information for planning efforts to identify and prioritize the main areas of runoff concerns. Identification, mapping, and prioritization of the Village outfalls and surface drop inlets will be completed early in 2010.

As stormwater awareness begins to take shape in Saranac Lake, the Village has agreed to increase street sweeping efforts after the winter snow melt. These extra efforts will prevent, contain and decrease the amount of sediments and pollutants entering the Saranac River and ultimately Lake Champlain.

Stormwater Retrofitting - Village of Lake George, Warren County

With the help of the *Targeted Watershed Program* funding, the Warren County SWCD and Village of Lake George have designed and installed a series of stormwater infiltration structures on roads within the Village. Thirteen separate roadside drywell systems were installed in 2009, capturing and infiltrating significant volumes of stormwater and pollutants prior to them reaching Lake George. These stormwater retrofits are a cost-effective way to solve urban stormwater runoff pollution problems to our lakes and streams.

Over the past three years, the SWCD and Village have installed almost 30 stormwater infiltration systems, keeping million of gallons of direct stormwater runoff from entering Lake George, helping to protect its high quality waters.

Installation of a drywell system on a Village of Lake George street in 2009

2009 North Country Stormwater Tradeshow

Attendees participate in discussion at the 2009 North Country Stormwater Tradeshow and Conference in Lake George

The *Fifth Annual North Country Stormwater Tradeshow and Conference* organized by CWICNY, was held on October 15th, 2009 at the Roaring Brook Resort in Lake George. This event continues to be one of the most popular and informative stormwater events in NY! This past year's conference featured the professional knowledge of Don Lake who is nationally recognized for his work on policies and solutions for stormwater. The wide variety of product and services vendors on display coupled with terrific presenters provided a great day for the 160 attendees.

Special thanks to Assemblywoman Teresa Sayward for providing wonderful opening remarks, as well as presenters Steve Zwilling, Scott Townsend, Staci Pomeroy, Bill Nechamen and Miriam McGiver for their wonderful presentations and insight on stormwater issues and policies. Mark your calendars for the 2010 Stormwater Tradeshow, which will be held on Thursday, October 21st.

Agricultural Plastics Recycling Project

"BigFoot" agricultural plastics baler. This machine makes 1,000 pound bales which can be recycled!

The Lake Champlain Ag. Plastics Recycling Project of CWICNY continues to move forward, encompassing the entire Adirondack Region including the St. Lawrence, Hudson, and Mohawk River Watersheds. This program keeps farmers from having to burn or bury this plastic, which helps solve a large environmental dilemma for north country farmers.

Thanks to NYS Senator Betty Little for funding this important Champlain Watershed initiative! CWICNY member organizations will continue to grow and market this program.

CWICNY MEMBERSHIP

Clinton County Soil and Water Conservation and WQCC
Essex County Soil and Water Conservation and WQCC
Franklin County Soil and Water Conservation and WQCC
Warren County Soil and Water Conservation and WQCC
Washington County Soil and Water Conservation and WQCC
LC-LG Regional Planning Board

PARTNER AGENCIES

Lake Champlain Basin Program
Cornell Cooperative Extension
Citizens Advisory Committee
Boquet River Assn
NYS Ag and Markets
NYS SWCC
APA
APIPP
Au Sable River Assn
NYS DEC

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