

# 2016 Annual Report

A brief summary of some of the many projects and programs undertaken by your local Conservation District in 2016.

The District's mission is to protect and improve the lakes, rivers, streams, soils and other natural resources of Warren County through locally-led conservation projects and programs.

## Did you know...

- The Warren County Soil and Water Conservation District was created by the Warren County Board of Supervisors in 1956 under NYS Soil and Water District Law. The District is a **Non Regulatory** county-based organization overseen by a seven member Board of Directors for local priorities.
- The District's 2016 operating expenses were **\$485,455**.
- Our 2016 funding allocation from Warren County was **\$322,152**, which is 0.21% of the county budget. The remainder of our income comes from competitive grants, municipal contracts and reimbursement from New York State.
- The District has received or partnered in over **seventy four grants in the past fourteen years, totaling over 5.3 million dollars**. These dollars go directly to conservation projects in Warren County.

### 2017 SWCD Board of Directors

Frank Thomas - Chairman  
 Ron Montesi - Vice Chairman  
 Mark Brown                      Tim Costello  
 Craig Leggett                    George Ryan  
 Evelyn Wood

### District Staff

Jim Lieberum, District Manager  
 Rhonda Jarvis, Office Manager  
 Dean Moore, Sr. District Technician  
 Bob Bombard, Water Resource Spec.  
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or "Like Us" on Facebook: [Warren County Soil and Water Conservation District](https://www.facebook.com/WarrenCountySoilandWaterConservationDistrict)

## English Brook Stream Stabilization

At the request of the New York State Department of Transportation, The District was asked to oversee an **English Brook stream remediation project**. An extensive section of English Brook in Lake George along NYS Route 9 just south of the I-87 overpass was damaged by the flood waters of Hurricane Irene. The storm had caused erosion and a bank failure that was beginning to impact NYS Route 9. The

District in conjunction with the Steuben County SWCD, Trout Unlimited, the New York State DEC and the US Fish and Wildlife Service, teamed up to design, permit and install the proper instream repairs to prevent further erosion and to return English Brook to a more natural state. John Braico

from Trout Unlimited, with the assistance of the USF&WS, designed a repair plan that called for the construction of a step-pool system consisting of 12 steps over the extensively damaged section of the brook, a return to proper channel width with the construction of a calculated stream bench and a reconnection to the stream's floodplain. The work was conducted on properties owned by the NYSDOT and was accessed across privately held land. Equipment for the project consisted of an excavator, a front end loader for the distribution of material and tandem dump trucks for the delivery of the 100 tons of 5'- 6' diameter stone. The excavator work was conducted and overseen by staff of the Steuben County



Pre-construction



At the top.....

SWCD. The work was performed from the dewatered streambed for a distance of approximately 250 feet, with a step being constructed every 20 feet. The restoration of the bankfull benches in the areas damaged by flood waters allowed for a re-connection to the small, yet important

existing floodplain. A front end loader and operator, on loan from the Village of Lake George, distributed the large stone materials along the stream from the top of the bank. Fill for the reconstructed benches was the native materials taken from the streambed and overburden areas along the stream. At the end of construction, areas of egress and regress were returned to a pre-construction condition. The disturbed soils were hydroseeded by the District to prevent the loss of soils and limit further sedimentation until further bank planting with native shrubs can be completed during 2017. The project funding was from the NYSDEC and Lake George Association. This is a project the District can point to as a true partnership project. Thank you to all of you who assisted with this successful project!



Post construction

## Yes we Have Farms..The Farm of the Year Award...

The District recognized Rich Lemelson of Owl Valley Farm, with the 2016 Agricultural Environmental Management **Farm of the Year** award. Rich has participated in our AEM Program for three years and we've had the pleasure of working with him on multiple conservation programs while watching his farm grow sustainably. The vegetables and hops that are produced are tremendous and Rich always put natural resources at the forefront. We continue to work together on a full farm conservation plan while meeting the overall goals of Owl Valley



## Two Conservationists of the Year!

The District recognized two outstanding individuals for their conservation efforts—**John Braico and Dan Hitchcock**. John has been assisting the District with stream projects for many years, and this year he was the critical part for our ability to effectively and correctly address an unstable reach of English Brook and assist with the removal of several smelt barriers on the lower section of West Brook. John is willing to assist on projects such as this due to his passion for trout and the natural systems they thrive in.



Dan Hitchcock



John Braico

As the Johnsbury Highway Superintendent, Dan has contacted us numerous times for assistance with stormwater and erosion issues and is a great partner by replacing failing or undersized culverts. His desire to complete a resource project as sustainably as he can is one of the many reasons for this award. The Conservationist of the Year Award has evolved over the years to recognize people who assist with getting conservation on the ground and are willing to go above and beyond for our natural resources.

## The Municipal Separate Storm Sewer System (MS4) Program

This past year, the District assisted all of the **MS4 communities** in our county (Warren County, Town of Queensbury, Village of Lake George, Town of Lake George and the City of Glens Falls). The assistance that we provide varies from outreach and education, stormwater training, water quality sampling, stormwater outfall mapping and annual report development.



MS4 Stream Cleanup Day

This EPA program is administered through New York by specific designated "urban" communities. All the MS4 municipalities are required to implement Best Management Practices to control stormwater runoff. The purpose of these regulations is to help protect and improve the quality of waterbodies in the more densely populated areas of the state.

These regulations outline tasks known as the six "minimum control measures, which each municipality must undertake to be in program compliance. This is a program that will likely continue to expand for the foreseeable future. Fortunately many agencies, not for profits, local citizens and others are working together to satisfy the program requirements and improve our water resources. For more information please go to <https://www.warrenswcd.org/ms4.html>.

## In Short.....

Hazard Mitigation: The new **County Hazard Mitigation Plan** is being reviewed by NYS and FEMA and it is anticipated that this will be adopted by mid summer. There continues to be good municipal response to this effort. Once this is approved, it will be available on line at our website and in all of our communities.

Champlain Watershed Coalition of New York: Warren County continues to be an active **member of CWICNY** and has assisted in several programs within the last year ranging from implementation of soil stabilization projects to assisting with the 2016 North Country Stormwater Tradeshow. CWICNY is a collaborative watershed effort that includes: Clinton, Essex, Franklin, Warren and Washington Counties. Visit <https://www.cwicny.org/> for more information.

Upper Hudson River Watershed Coalition: In 2016, our staff began evaluating stream crossings in the Upper Hudson Watershed in Warren County. (see NAACC). This data will (1) provide valuable information for priority replacement of stream crossings (2) identify areas of restricted aquatic organism passage and (3) provide the documentation for grant applications to address both issues. This is very important as approximately **75% of the county** is located in the Upper Hudson River Watershed!

### Echo Lake Watershed Assessment

At the request of the Town of Warrensburg, the District developed a watershed assessment for **Echo Lake**. A local landowner had contacted the town with concerns over both lake levels and the general appearance of the lake. The report provided to the town a number of parameters with which to monitor water quality. Included within the report was data on the physical characteristics, chemical parameters, water clarity and aquatic vegetation found in the lake.

### Purple Loosestrife Management Program

The District wrapped up a successful **loosestrife management program** with the release in 2016 of 6,000 beetles. Over the projects two years, we released approximately 12,000 beetles in 5 locations. This was a great program not only for loosestrife control, but it allowed us to recruit and educate volunteers to help rear the beetles until their release. Thanks to the Lake Champlain Basin Program for supporting this effort.

## Locally Sourced

**Agriculture** in Warren County continues to grow and diversify. From agricultural grants to educational programs, farmers markets and food hubs, it is getting easier and easier for individuals to purchase products from local farms.

This year three farms installed high tunnels through the Regional Conservation Partnership Program (RCPP). High tunnels allow producers to plant earlier and grow later with the possibility of growing year round and reducing nutrient runoff. While they look like greenhouses, they mainly differ in that instead of planting into pots or elevated tables as in greenhouses. Mother nature will still dictate how long you can grow due to temperature and sunlight! The Farm Talks series continued with great support throughout 2016. The four evening presentations covered invasive species, pond management, organic farming certifications and woodlot management while partnering with Cornell Cooperative Extension, Warren County farmers, a local forester and the NYSDEC. If you have any suggestions for a topic, please let us know.



Owl Valley Farm

## Stormwater Successes

In 2016 the District managed two NYSDEC stormwater grants and partnered on a third. Throughout the year, **twelve retrofit projects** were completed that included green and gray stormwater retrofits which were installed with our municipalities.

At the Hague Highway Garage, a 60'x 30' bioretention area was installed to capture stormwater runoff from an impervious area of the garage. The bioretention was planted with 21 hardy NY native shrubs and holds 8" of stormwater before overflowing into a 4'x8' drywell. The area allows for stormwater infiltration and nutrient uptake by the plants as well as capturing sediment from entering Hague Brook.

In July of 2016, a 2,000 gallon stormwater separator, catch basin and a 4'x 8' drywell were installed by the Town of Lake George at the Lake George Transfer Station. This project reduced stormwater runoff and sediment transport to a tributary of West Brook. Subsurface stormwater projects may be hard to identify once installed but the water quality benefits are easy to measure and see when the municipalities clean out the structures with a hydrovac truck. Watching the floatables and sediment carried by stormwater being removed from a treatment system makes it easy to understand the water quality benefits of these projects.



Hague bioretention system



BMP assortment, VLG

## 2016 State Recognition

District Chairman Frank Thomas was nominated by the staff and was awarded the New York State Conservation District Employees' Association's (NYSCDEA) **District Director's Award** for his support and work with the District at the 2016 NYSCDEA Water Quality Symposium. Frank provides sound steady advice, guidance and support. He along with all of the board members allow the District to continue growth and assist the public and municipalities.

At the 2016 New York Association of Conservation Districts (NYACD) meeting, the District was awarded the 2016 NYACD **Commendation Award** for its work on the Exit 22 Stormwater Improvement Project. This project involved reduction and treatment of stormwater going to Lake George. Although the District was the recipient of the award, this was truly a partnership project that showed what can be done through working relationships. The District wishes to thank: Jarrett Engineer's LLC, The Lake George Association, The Fund for Lake George, Lake George Village DPW, Warren County DPW, Town of Lake George, Town of Queensbury, Town of Warrensburg, Town of Chester and the Town of Horicon, the NYSDOT and the NYSDEC. By sharing the work, this important project was able to be completed as planned!



Frank Thomas



Commendation Award

**Landowners and Municipalities....**The District encourages conservation in many ways. We assist landowners and municipalities through conservation education, erosion and sediment control assistance, site visits, technical reports, resource recommendations, mapping and much more.

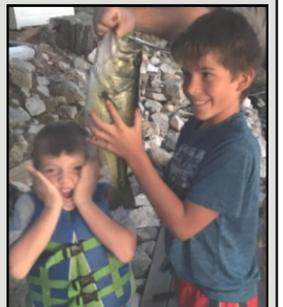
Our 2016 **Envirothon** included over 200 students, facilitators and volunteer participants, making this annual event a fun and educational experience. Welcome and congratulations" goes out to Sherri Slater from WSWHE BOCES who brought a new team to our event and won it! That team went on to represent Warren County at the state competition held in Geneva, NY. The credit for the success of this program truly goes to the teachers, volunteers and sponsors who have consistently supported it through the years. In addition to the Envirothon, the District develops, sponsors, hosts and assists with **many other events** throughout the year including the Farm Talks, Environmental Field Days with Cornell Cooperative Extension, the NYSDEC 4 hour Erosion and Sediment Control Classes for professionals, stormwater and erosion control for both MS4 and non-MS4 communities, and other natural resource topics. If your group or community would like to schedule a presentation with the District, simply contact us!



2016 WC Champs!



Twice a year we also give the public an opportunity to get their hands dirty through the District's low cost tree and shrub seedling program and fish fingerling sales. Through our **tree seedling program**, nearly 40 different species of bareroot seedlings are sold in the spring. In 2016, we sold over **5,500 low cost** seedlings. Although most people know we sell seedlings, we also carry wildflower seeds, fertilizers, tree shelters, and wild game plot mixes. Our bluebird, wood duck and bat houses are in stock throughout the year. There are a multitude of conservation uses for the plants we offer including erosion control, wind breaks, wildlife enhancement, insect control, pollination and wildlife food supply. The District also offers a **Spring & a Fall Fish Sale**. In 2016 we sold over 3,000 fish (brook and rainbow trout, largemouth bass and fathead minnows). This program has provided the opportunity for landowners to buy fish for their ponds at a low cost and have them available for pick up at our office. Check our website for order forms and information.



Our **Erosion and Sediment Control Program** assists municipalities with erosion control after maintenance activities or construction projects. By applying this combination of wood fiber, fertilizer, grass seed, and water on bare or disturbed soil we are able to prevent the loss of hundreds of tons of sediment each year, which impacts our waters. In 2016, the District stabilized **17 Acres** of disturbed surface and our partnerships with local municipalities, the County DPW and State DOT remains tremendously strong. It is not unusual for us to receive a call for assistance and be able to respond within two -three days. Hydroseeding is a valuable tool for immediate stabilization of disturbed areas during road construction and maintenance activity. 2016 was another strong year for the District as we completed multiple projects in the Hudson River Watershed as well as the Lake George watershed. The District is in its last year of a three year NYSDEC grant that targets erosion and sediment control and has secured another funding source for 2018 and beyond.



## Getting the NAACC of Aquatic Connectivity

The District was host to the **North Atlantic Aquatic Connectivity Collaborative** (NAACC) training this past April. The training included technical staff from ten Districts and was presented by the NYSDEC. The collaborative is a network of government, universities and conservation bodies that have been designated for the assessment of road-stream crossings within the Northeastern United States. The training focused on the protocols for assessing the current conditions of the bridges and culverts and the logistics of entering that data into the NAACC regional database. The assessments will be used to identify crossing most in need of replacement and improvement for aquatic connectivity. Dozens of crossing have already been assessed within Warren County using the NAACC protocol and several have been included in grant applications for funding to replace the current structures.

Culvert replacement assistance is not new to the District; we have been working with local municipalities for many years on appropriately sizing and installing road-stream crossings. Two of our current NYSDEC grants are funding culvert replacements and habitat improvement. Our **Aquatic Habitat Improvement** grant was used to assist the County DPW in replacing a pair of undersized culverts on West Hague Road this summer. A third is scheduled in the Town of Chester this in 2017.

Our **Aquatic Wildlife Passage and Stream Crossing Restoration** grant will be used in 2017 to assist in replacing crossing structures in Bolton, Chester, Hague and Queensbury.

Lastly, the District, with assistance from Trout Unlimited and the Village of Lake George DPW, removed a set of three man-made weirs from the lower end of West Brook. This was a project that was requested by DEC fisheries staff in Warrensburg as the weirs prevented the migration of rainbow smelt and salmonids to upstream sections of West Brook. The impounded water caused a deterioration of trout habitat in the brook, which has now been rectified in this section. We hope to see smelt and salmon further up West Brook this spring.



## Schroon River Habitat Improvement

The District has concluded a NYSDEC **habitat improvement grant** focused on the Schroon River.

We met the project deliverables by installing 51 aquatic habitat structures (47 root wads and 4 boulder clusters) along the banks of the Schroon River in the Towns of Warrensburg and Bolton. The support from local municipalities, landowners, and the assistance with volunteers and interns the District had provided an increased amount of aquatic habitat (and fish, it's confirmed) along this stretch of the river.



*The effort from the staff and Board of Directors here at the District continues to amaze me with the enthusiasm and professionalism shown throughout the always busy year. We probably take on more than we should, but we never like to turn down assistance requests from landowners or municipalities, even with the existing projects and programs that we work on. As we have always done, we continue to adapt to meet the needs of our citizens and I encourage anyone to contact or visit our office to discuss any issue or need that we may be able to help with. - Jim Lieberum, District Manager*

## Brant Lake Milfoil Harvesting Program

The Town of Horicon and the Brant Lake Association in conjunction with the District have teamed together to help fight the spread of **Eurasian Watermilfoil** in Brant Lake. Aquatic Invasive Management Inc., removed approximately 9,150 pounds from Brant Lake in 7 weeks of hand harvesting which is a 33% increase in milfoil harvested from the 2015 season. Brant Lake presents a management challenge due to the morphology of the lake, which allows for certain areas of the lake to have high milfoil productivity. Work will continue in 2017 and beyond in an effort to bring this invasive species under control in the lake.



## Schroon Lake Watershed Program

The District has completed its fifth year as the contract administrator for Aquatic Invasive Species Program for **Schroon Lake**. The District has partnered with the Towns of Chester, Horicon and Schroon, the East Shore Schroon Lake Association (ESSLA) and the Schroon Lake Association (SLA) to manage Eurasian Watermilfoil and Curly-Leaf Pondweed in the lake. With the assistance of the ESSLA's Volunteer Milfoil Scout Program and the SLA's Littoral Zone Milfoil Survey, AIM had reduced its harvest volume from 2,200 to 618 pounds, a reduction of harvested milfoil biomass of 72%. This outstanding result was only possible through the diligence of all the parties involved with this program.

Aquatic plant management is only one aspect of this watershed effort; another significant issue and primary focus of the program is stormwater. Stormwater remediation within the hamlet continues with a proposed infiltration system located within the town parking lot. Designs are being refined by the project engineer for drywells and possibly rain gardens to treat runoff from the town hall. Excess stormwater from the site that can't be treated in the lot, along with runoff from Leland Avenue and Route 9 that currently flows down Dock Street to the lake, will be captured and piped to a proposed system in the town park. The system will consist of 4 interconnected drop inlets located along Leland Avenue and coupled to multiple underground infiltration chambers within the park. The work at this site is planned for completion in 2017.

In the spring of 2016, the town and District successfully completed the installation of a bio-retention structure in the form of a tiered rain garden for sediment capture, nutrient uptake and water infiltration. This project was made possible through funding from the NYS Dept. of State (NYSDOS) and the Town of Horicon and volunteers from the ESSLA. The final components for stormwater management at this location will be installed in 2017 and further enhance the appearance and protect the water quality at the beach. A trench drain and bio-retention area will be placed at the top of the beach and stormwater from Church Street will be captured by the trench and transported to a bioretention area for infiltration; an overflow pipe will be installed within the retention area and connected to the existing treatment area on the northern edge of the beach. 2017 is the final year for construction projects from the NYSDOS grant however the concept of watershed wide management will continue in the Schroon Lake Watershed for years to come.

