

2018 Annual Report

A brief summary of some of the many projects and programs undertaken by your local Conservation District in 2018

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 SWCD 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 2018 operating expenses were \$503,041. Our 2018 funding allocation from Warren County was \$333,732, 0.21% of the 2018 county budget. The remainder of our income comes from competitive grants, municipal contracts and reimbursement from New York State.



If you're interested in finding unique trees, then check out the remarkable trees application at warrencountyny.gov/trees.

2018 SWCD Board of Directors

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

District Staff

Jim Lieberum, District Manager
 Rhonda Jarvis, Office Manager
 Dean Moore, Sr. District Technician
 Bob Bombard, Water Resource Specialist
 Nick Rowell, Natural Resource Specialist
 Maren Alexander, District Technician

Tel: (518)623-3119
Fax: (518) 623-3519
jim99@nycap.rr.com

Visit us at: 394 Schroon River Road Warrensburg NY 12885

online at our website: www.warrenswcd.org;

"Like Us" on Facebook: [Warren County Soil and Water Conservation District](https://www.facebook.com/WarrenCountySoilandWaterConservationDistrict)

Planting Partnerships...

Fort Amherst Road

The number one comment we received during construction at this site was "why are you digging up that perfect grass"? Well the Fort Amherst Road bioretention project is part of a green street pilot program as well as the larger goal of having landowners and municipalities working together to improve water quality. The project consists of native grasses, an engineered rain garden soil mix, and rock forebays with curb cutouts. Stormwater runoff now flows into the first curb cut where sediment and debris are captured in the rock forebay, the stormwater then filters through the bioretention area where plants take up nutrients and water can infiltrate. In larger storms, the stormwater will continue to flow out of the second curb cut with cleaner stormwater accessing the storm sewer system in the Halfway Brook Watershed.



This project was installed with the Queensbury Highway Department resulting in both the Town and landowner being very happy with the project. Aside from Fort Amherst being one of the first curb cut green street type projects in our county, there is a much larger and important message for our community. This project is a display of landowners and municipalities working together to protect our natural resources of Warren County. Now the bioretention is just as aesthetically pleasing with the added bonus of native grasses and a stormwater green infrastructure project.

Birdsall Road

Another example of landowners and municipalities working together for a common environmental benefit is the Birdsall Road bioretention project. This green infrastructure stormwater project consists of several catch basins to capture stormwater on the roadside and convey it to two—100 sq. ft. bioretention areas. These bioretention areas are raised timber framed beds planted with native flowers and grassed to take up nutrients from the stormwater and allow for infiltration.



During larger storm events, the stormwater can overflow into a stand pipe and out to a vegetated swale. This stormwater system reduces road flooding and icing and minimize nutrients that reach Glen Lake.

This project benefits the lake, local landowners and the Town through improved water quality runoff and road safety. The District, Town of Queensbury and landowner worked together to obtain approvals and easements to get this water quality project completed.



AEM Conservation Farm of the Year Award - The Pesto Project



The Pesto Project is part of our Agricultural Environmental Management (AEM) Program and is a very unique small vegetable farm, as it is part of the not-for-profit Warren-Washington Association of Mental Health. This is a fully functioning small farm that sells produce and uses the vegetables for "farm to table" meals at the Association's facility. This urban farm in the City of Glens Falls received funding from the Regional Conservation Partnership Program (RCPP) through

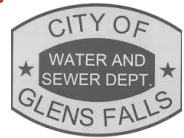
our office, to install a high tunnel to extend their growing season and reduce nutrient loss.

In the agricultural field, many times Districts hear that the improvement sounds like a great idea but the farm doesn't have the time or finances to implement it right now. So far we've never heard anything close to this answer from the Pesto Project. There's a lot of conservation happening on this site due to so much forward thinking and hard work. From soil health practices including soil testing and no-till to cover crops, mulching and water conservation... they do it all!



City of Glens Falls Stormwater Projects

With the Glens Falls Water & Sewer Department



Bowman Ave



The District teamed up with the City of Glens Falls to install the Bowman Avenue stormwater project and the Glens Falls Water & Sewer Department. The green infrastructure project consists of a 300 sq. ft. rain garden planted with native plants and a grassed swale overflow for larger storm events. To capture and treat additional stormwater runoff, a 1,000 sq. ft. section of permeable pavers were installed on the east side of the rain garden. This stormwater project reduces direct runoff to a tributary of Halfway Brook.



Webster Ave

In addition to the Bowman Ave project, the District and the Glens Falls Water and Sewer Department installed 460 linear feet of pre-cast porous concrete sidewalk on Webster Avenue. The porous sidewalks reduce the amount of de-icing materials needed during snowmelt and freezing. Water will infiltrate through the porous concrete and not pool and refreeze as on normal impervious sidewalk. Compost, seed and straw mulch were put down for erosion control just before the early snow decided to fall. In spring the final landscaping and hydroseeding will be completed. Directly east of the porous sidewalk where a tributary of Halfway Brook crosses the road, a 300 sq. ft. rain garden & grassed infiltration swale with rock forebays were installed to capture stormwater runoff. The rain garden is planted with native flowers, grasses and shrubs. These projects show the enthusiasm that the city has for reducing stormwater impacts from city infrastructure!



Conservationist of the Year—Tom Girard

Being the Glens Falls Water and Sewer Field Operations Manager, installing stormwater green infrastructure projects is (was) not part of Tom's daily routine. Tom was asked by the City to install several smaller green infrastructure projects as part of the City's NYSDEC Water Quality Improvement Program



grant to save funding and provide matching grant funds. What started as a few projects quickly turned into five larger projects and Tom was there every step of the way to get the projects planned and installed. He even agreed to a new type of porous sidewalk project that was not yet utilized in our area, and it was a learning curve for all partners involved. Working with Tom and his crew the past few years on stormwater projects has been enjoyable and entertaining. He and his crew are always ready to get digging on conservation projects and appear to enjoy working outside of their required department work (as well as their comfort zone). On top of everything, these five projects were installed in only two construction seasons. This team is full of great attitudes and makes even the coldest, rainiest, muddiest projects full of good times and great outcomes.



Tom Girard (R) and Frank Thomas (L)

Tire Recycling Program

Don't let those tires sit around the house any longer since the District has initiated a Tire Recycling Program. The District rented a tractor trailer which was delivered to the Warren County DPW in Warrensburg, and county residents were able to get rid of used and old tires that were taking up space in the garage and yard! The event took place on the first Saturday in May



and collected over 700 tires. These tires are taken to a recycling facility and then repurposed. Often tires get disposed of in careless, illegal and environmentally impacting ways and the District has decided that there is a need for a safe, low cost method for recycling these tires. The tires collected get recycled into products such as rubberized asphalt, decking materials, and sports tracks and fields, just to name a few 2019's event in Lake George, is May 4th! See you there!

West Brook Conservation Initiative

The West Brook Conservation Initiative stormwater improvement ponds were constructed to capture and treat stormwater runoff from Canada Street (Route 9) in the southern end of Town and Village of Lake George. Prior to the project, stormwater runoff from a section of Route 9 emptied directly into West Brook, a major tributary of Lake George. The ponds were conceived and constructed by a coalition of municipal and non-governmental organizations (NGO) which currently include: Warren County, the Village of Lake George, The Fund For Lake George, The Lake George Association and The Lake George Land Conservancy. At the request of the county and the NGO's, the District has agreed to oversee the management and upkeep of the ponds with both quarterly inspections and oversight of repairs and maintenance to the stormwater treatment system.



Community Outreach in 2018...

The **Tree and Shrub Sale** sold over 5,300 trees and shrubs and two dozen bird and bat houses. The District received national acclaim after the theft of 130 seedlings that had been planted on the grounds for future projects, hopefully not to be repeated.

Adopt a Hemlock Program - In the spring of 2018 District staff attended an informational meeting at the Village of Lake George with regards to the identification of Hemlock Woolley Adelgid on Prospect Mountain. In order to assist with this critical issue, the District initiated a tree adoption program by providing 100 hemlock seedlings to cooperating landowners for monitoring purposes. The landowners were given identification information and agreed to monitor the trees and contact the office if their health changed.



Fish Sale - The District continues to support pond owners through our spring and fall Fish Sale Program. This sale offers Rainbow, Brook Trout and Largemouth Bass for pond stocking.

Arbor Day - Students, community volunteers, libraries, and town supervisors learned about the history of Arbor Day, why trees are significant to us and the environment and the celebrations concluded with a planting of a white spruce or sugar maple at their location.



2018 Envirothon Champions - ADK BOCES

The District celebrated its 25th annual **Warren County Envirothon** and had one of our largest attendances of High School students. The Envirothon engages students to test their knowledge in an academic challenge on natural resources. Students have the opportunity of face-to-face time with professionals from the natural resources field. Many of the participants will go on to have careers in environmental conservation. The District would like to thank its sponsors for their support year after year!

Community Conservation Program - This year the District continued to provide funding for conservation projects, educational purposes or resource protection through schools, community groups and educational institutions. Several projects supported included a community garden, educational forum, community seed library and a green house project. The picture on the right is of Warrensburg Elementary School students building a portable green house for the STEM program.



2018 Fish Sale Program



Queensbury Middle School Arbor Day Celebration

More information about our outreach programs can be found at www.warrenswcd.org



Farm Talks

The Farm Talks had two presentations and were both taught by Warren County farmers from our AEM Program. The first presentation was "Setting Up No-Till" with certified organic mixed vegetable farmer, Rand Fosdick of Landon Hill Estate Farm. The second presentation was "Deep Mulch Method & High Tunnel Practices" with Brendan Riordan of Riordan Family Farm.

Learning and utilizing different farming practices that work for your farm, land and goals will lead to efficiency and success. At the base of every farm is soil, therefore having healthy living soils and utilizing techniques to increase and protect soil health will greatly benefit a farm. No-till and mulching practices lead to an increase in soil organic matter which in turn reduces erosion and increases the beneficial microorganisms.

Rolling out the Green Carpet on Erosion Control...

Pine View Cemetery

The northern shoreline of this three acre pond had over 300 feet of heavily eroded bank caused by stormwater runoff. The District approached the Town of Queensbury to repair the damage to this tributary of Halfway Brook and was able to secure funding through a Lake Champlain Basin Program grant.



A grass lined swale was graded into a road side bank that previously funnelled stormwater runoff from the roadway to the pond's shoreline. The swale directs both road and hillside runoff to a grassed bio-retention area to reduce erosion potential, allow for infiltration and sediment removal. Uncontrolled runoff volume from the roadway was a major factor in the degradation of the shoreline banks; with stormwater directed off the road and away from the banks, repairs were made to the damaged shoreline. The banks were re-shaped by the Queensbury Highway Department, hydroseeded with a conservation grass mix with added wildflower seed and rolled erosion blankets were then installed. Finally a total of sixty two shrubs were planted through the erosion control blankets to aid in stabilizing the newly formed banks. The species included Snowberry, Spicebush, Ninebark, Silky Dogwood and Red Twig Dogwood.



Foster Flats

In the Town of Chester, The Foster Flats and State Route 9 stormwater project diverts stormwater runoff from Route 9 and treats it in a 1,000 sq. ft. grassed bio-retention area. The inlet of the system is stabilized with permanent erosion control mats which replace rock riprap with grass. Benefits of the grassed mats are a reduction in thermal pollution and the uptake of nutrients from the stormwater. The site was excavated and the existing soil removed and backfilled with an engineered rain garden soil. In spring, 500 sq. ft. of the area will be planted with hardy native shrubs and grasses. The site is designed to hold 6 inches of stormwater before overflowing. The stormwater runoff is now treated instead of flowing directly to a tributary of Chester Creek.



Thoughts from the District Manager...

The credit for our successful program does not go to any one individual. It is a concerted effort by staff on a daily basis and the Board of Directors on a monthly basis. Along with strong support from Warren County and our municipal partners, we have been able to develop, maintain and improve many conservation related projects and programs across the county. We are stretched with staff time allocation and numerous projects, but somehow we eagerly work other requests in. It is that willingness by the staff and Directors to assist at a moments notice, that creates a sense of accomplishment, good will and partnerships. We never forget that we are here to serve the people of the county, either as landowners or as part of their community. If you think that we might be able to provide assistance, please feel free to reach out and ask. Thank you for your support!



Champlain Watershed Improvement Coalition of NY

In 2003, the Champlain Watershed Improvement Coalition of New York (CWICNY) was formed between the five District's and Water Quality Committees (Clinton, Essex, Franklin, Warren and Washington) and the Lake Champlain Lake George Regional Planning Board to address natural resource needs on the New York side of the Champlain Watershed. This not-for profit group utilizes grants to provide project funding for the Rural Roads Improvement Program (RRAMP), the Annual North Country Stormwater Tradeshow, septic system education, agricultural assistance and other projects and programs. CWICNY's current focus is working with local highway departments on the many rural roads that they manage and reducing impacts to our waterbodies through the RRAMP initiative.

Did you know...
25% of Warren County is within the Champlain Watershed and includes approximately 1/3 of Glens Falls.



Upper Hudson Watershed Coalition

The Upper Hudson River Watershed Coalition received a NYSDEC Water Quality Improvement Program grant for \$389,178 to implement projects identified in the Upper Hudson Roadside Erosion Assessment. The coalition is moving forward to complete the Regional Conservation Partnership Program grant for implementing agricultural conservation practices and is seeking funding to assist communities with road/stream crossing improvements.

Hazard Mitigation

Hazard Mitigation (HM) is a subject that most don't realize they consider every day. HM addresses natural disasters/occurrences and provides a way to reduce the potential impacts and lessen severity. An example is watching the weather and road conditions then altering your drive in to work. It is critically important for homeowners and municipalities to understand the concept and decide what they should do to become better prepared for incidents. The District has been providing presentations at the municipal level and is happy to provide information for anyone or community. Not all efforts are large scale projects; many things are common sense and can be low cost! Visit <https://www.warrenswcd.org/hazard.html> to see the 2017 Hazard Mitigation Plan and view your community's information. This image is Route 418 in Thurman, which was closed in January 2018 due to the ice jam on the Hudson River.



Erosion and Sediment Control Program

In spite of a challenging year, District staff completed a total of 34 hydroseeding projects this year covering 10 acres of bare soil. This program is the "go to" program for highway crews in Warren County to reestablish vegetation after a construction project and reduce erosion. Traditionally a hydroseeding mixture is applied on bare ground consists of seed, tackifier, phosphorous free fertilizer, and wood fiber mulch. With recent funding the District has included monies for Best Management Practice (BMP's) materials to help address more critical areas. An example is the image to the left of the ditch sediment trap that was installed in Chestertown. This concrete basin will slow the flow of water and allow sand and other particles to settle in the basin rather than travel to a water body. Funding for this program was provided by the NYS Department of Environmental Conservation Water Quality Improvement Program.



North Atlantic Aquatic Connectivity Collaborative



In 2018 the District began a concerted effort to begin to survey the over 1,400 road stream crossings within the county. Using the North Atlantic Aquatic Connectivity Collaborative (NAACC) protocol for stream crossing assessments; District staff completed culvert evaluations for the predicted crossings in the Towns of Warrensburg and commenced on the Towns of Lake Luzerne and Chester.

The data collected is loaded to a database which holds culvert information for the Northeastern Atlantic states from Maine to Virginia. From this data, a determination of the culvert's ability to transport stream flow volumes and their capabilities of aquatic organism passage through the crossing are quantified. The crossing rankings are used by the New York State Department of Environmental Conservation's WQIP program as justification for grant expenditures for culvert replacement.



Aquatic Passage Improvement Grants—NYSDEC

In an effort to reconnect impassable headwater trout streams in the county, the District continues to assist local municipalities on the installation of properly sized and imbedded culverts or bottomless structures. This past year, an undersized culvert on a Hudson River tributary in the Town of Chester was replaced with new properly sized and better aligned structure and the remaining funds from this grant are to be used to replace another failing culvert in the county. In 2018, a number of culverts were NAACC inspected through out the county for possible replacement. To date we have yet to find a culvert that meets both the sizing and aquatic passage criteria for the funds. The grants the District receive, assist both Town and County Highway Departments with the replacement of bridges and culverts on streams in the county. Pictured is the replacement of a poorly designed and undersized culvert on Buckbee Road in Queensbury. This project addressed stream volumes, road stability/safety and aquatic organism passage. It's a good example of multiple benefits from a single project.

Chester was replaced with new properly sized and better aligned structure and the remaining funds from this grant are to be used to replace another failing culvert in the county. In 2018, a number of culverts were NAACC inspected through out the county for possible replacement. To date we have yet to find a culvert that meets both the sizing and aquatic passage criteria for the funds. The grants the District receive, assist both Town and County Highway Departments with the replacement of bridges and culverts on streams in the county. Pictured is the replacement of a poorly designed and undersized culvert on Buckbee Road in Queensbury. This project addressed stream volumes, road stability/safety and aquatic organism passage. It's a good example of multiple benefits from a single project.



....the new properly sized structure



Buckbee Road pre construction

Opportunities with new Friends and Partners!

In 2018 the District had the pleasure to enjoy the outdoors with Prospect Center students. Not often are these students able to get outside and dig in the "dirt", but District staff, teachers and students all had a terrific time planting native shrubs and perennial flowers in a rain garden and around the Gurney Lane pond. The students also enjoyed a nature hike on a multimodal accessible trail, where they learned about tree species, stream critters and forest habitat. The District is looking forward to continuing to work with the Prospect Center and any school in our county that has an interest in the outdoors and conservation! Feel free to contact us.....

