Warren County Soil & Water Conservation District

2019 Annual Report

A brief summary of some of the many projects and programs undertaken by your local Conservation District in 2019

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.

Sprucing Up Pine View Cemetery…

The Town of Queensbury's Pine View Cemetery is full of interesting features such as a pond, tree species unique to the area, historical grave sites, and cemetery staff who are open to new ideas and landscapes.

In 2019, the District had an opportunity to work with Warren County Department of Public Works to improve drainage, reduce both sediment, and nutrient loading from stormwater runoff transported along Quaker Road, while undertaking a reduction of lawn maintenance activities at the cemetery. The drainage repair was approximately 840 feet long; two drainage culverts were replaced and several sections of ditch needed to be reshaped in order to re-establish an efficient and minimally impacting stormwater conveyance system. The new culverts eliminated the formation of upstream ponding, allowing for a reduction in water velocity, which had caused large scours pools. By regrading and shaping the ditch, stabilizing with stone and re-vegetating the areas, stormwater runoff conveyed to Cemetery Brook improved.

The second component of the project was to transform an area, that cannot be used for burials and is frequently mowed, to a native plant garden. The new use of this space will promote pollinators and reduce maintenance. Volunteers from Cornell's Master Gardener Program, Town of Queensbury, Lake Champlain Basin Program and others planted and mulched the new garden. The town hopes to continue to transform the rest of the (unusable) space into garden habitat. If you haven't had a chance to see the changes to Pine View Cemetery, you're truly missing out.

Thoughts from the District Manager

Well we made it. Projects, programs, special requests, Director changes, and weather events made for an interesting and exceptionally busy year. Many people know the District as the folks who sell the bare root tree seedlings in the spring, but this report reveals the District's involvement in many more areas. We have accomplished the goal of having a diverse program.

While our calendars are filled out and projects planned, as Robert Burns famously wrote- *The best laid schemes o' Mice an' Men often go astray.* We have been able to keep moving forward and while working on many projects and programs, taking new ones on and reducing others as necessary. It is a rare day that it is quiet around the office and that drive is what makes us successful in our programs. We look forward to 2020 and what it might bring. We have many projects and programs planned, and "I'm sure" this year will go according to plan...

Water, High Above

The District's *Small Lakes and Ponds Program* is working with the Glens Falls Water & Sewer Department to conduct water quality sampling of their water supply reservoirs. District staff used a meter to test for temperature, dissolved oxygen, pH, conductivity, oxidation reduction potential, chlorophyll a and harmful algal blooms, phycocyanin. This project will establish a baseline for physical and chemical readings for the forested waterbodies within the Glens Falls watershed and offer data for comparison for highly developed and urbanized waterbodies found within both the Upper- Hudson River and Lake Champlain Watersheds.

Going Green

The District and the City teamed up to transform an old cemetery road into a new 3,140 ft^2 permeable road and stormwater infiltration system. The area receives significant stormwater runoff that contributes to excess stormwater along Webster Ave., and ends up in a tributary to Halfway Brook. The team also installed two grassed bioretention areas totaling 720 ft^2 to treat additional stormwater runoff. This project will reduce stormwater runoff and pollutants reaching the Halfway Brook waters, within the City.

Northway Improvements Promote Water Quality

Since the construction of the Northway (I87) in 1967, it has been a major travel corridor for residents traveling between Albany and Canada. This stretch of highway is over 300 miles, crosses over numerous waterbodies, and creates a significant volume of stormwater runoff. In 2019, the Lake George Association (LGA) asked the District to provide assistance, with removing several sections of asphalt stormwater channels along the Northway, in order to reduce the volume of untreated stormwater being conveyed to local streams, carrying excess nutrients, sediments and pollutants. The LGA received a $86,227 grant from the Lake Champlain Basin Program to replace these channels with best management practice solutions. LGA worked alongside the District and New York State Department of Transportation (Region 1) to re-establish vegetated swales with low-growing little blue stem, rolled erosion blankets, and erosion control mats to slow the stormwater flow and allow for stormwater infiltration and natural filtration. The idea was that not only would nutrients from the stormwater remain in the soil and be taken up by the natural vegetation, but low growth vegetation would reduce the number of mowing cycles. This year we were able to complete projects for the top three priority sites and removed a total of 1,100 feet of asphalt swales along the Northway corridor.

Erosion and Sediment Control Program

The Erosion and Sediment Control Program also known as our *Hydroseeding Program*, has been successfully funded since its inception over 14 years ago. The program funded through the NYS Department of Environmental Conservation Water Quality Improvement Program, works hand in hand with municipal road crews to stabilize roadsides to reduce erosion and protect water quality. The District offers supplemental erosion and sediment control materials to municipalities such as; erosion control blankets, compost filter logs and engineered soil mediums to improve growth on sandy slopes. Having secured the latest round of funding, we look forward to providing more resources to municipalities for erosion control solutions to protect water quality in Warren County.

Agriculture & Academics

The Agricultural Business Program and Market Farm at SUNY Adirondack has participated in the District's Agricultural Environmental Management (AEM) Program for over five years. The AEM program has assisted the college with multiple conservation practices, and watched the Agricultural Program grow in the classroom and on the ground. The college implemented numerous District recommendations from simple soil tests to the more in-depth no-till, soil management and cover crop plans. It has also been almost impossible to keep up with Professor Scherbatskoy's innovative ideas and progressive plans for the farm! The District and college also partnered on the *Soil Health on Market Farms* grant completing a substantial one year workload that went very well. This grant included building a market farm plot, purchasing and utilizing market farm tools and supplies, holding three workshops and working directly with the students on soil health best management practices. Not only is the college building a sustainable market farm with students, they are also building a sustainable community by linking local farmers, agencies and the AEM Program together. The extensive partnership built by the college, will ensure the future success of the program and the campus farm. With all of that, the college's hard work to grow the Agricultural Program with conservation practices on the forefront is why the SUNY Adirondack's Ag Business Program was chosen as the AEM Farm of the Year!

Sustainable Berries in the Adks

The *Farm Talks* series celebrated its sixth year by offering a talk with Laura McDermott, of Cornell Cooperative Extension's Eastern NY Commercial Horticulture Program, on *Sustainable Berry Production in the Adirondacks – Reasonable Approaches to an Unreasonable Venture*. The District and local farmers learned sustainable methods for growing blueberries, brambles, honeyberries, and juneberries. We had such a positive response from this topic, that the District offered a second Farm Talks on growing and managing berries with a field workshop. The Talk was held at a local farm to discuss the Spotted Lanternfly and sustainable approaches to organic growing and management as well as soil health and collecting soil samples!

Attention Farmers!

The District continues to works with Warren County farms to ensure the protection of natural resources in our watersheds. This voluntary, incentive-based program allows the staff to assist farmers with conservation planning that represents the farm's overall goals and environmental stewardship, while having a positive impact on the community. The District would like to thank all of our participating farms for working with us to ensure the betterment of our natural resources. For more information about the AEM Program, contact us at (518)623-3119.

AGRICULTURAL ENVIRONMENTAL MANAGEMENT

AEM

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

Champlain Watershed Improvement Coalition of NY

The Champlain Watershed Improvement Coalition of New York (CWICNY) continues to provide technical assistance and funding through grants, assist communities with roadside erosion issues, stormwater impacts, invasive species education and other natural resource concerns. A portion of a watershed based NYSDEC implementation grant, was utilized to review and update the American Recovery and Reinvestment Act (ARRA) Roadside Assessment within the Lake Champlain Basin. This assessment evaluates areas of concern for erosion and provides recommendations and estimated repair costs. In 2019, funding from the grant was utilized by the Town of Hague to stabilize a portion of ditch on Decker Hill Road. Both stone and vegetative measures were used to reduce sediment loading to Hague Brook. We are happy to report that there was no damage to this section during the October 31st storm event!

Upper Hudson Continues Conservation Flow

The Upper Hudson River Watershed Coalition is continue to move forward towards healthier water quality throughout the watershed. The Department of State watershed plan is near completion, with continuous work on the NYSDEC roadside erosion grant and one additional NYSDEC grant that will go into action in 2020.

High Water & Hazard Mitigation…

This past year we experienced two of our most common North Country weather events – flooding and severe storms. While the Halloween Storm is relatively fresh in many peoples memory, remember that portions of Warren County experienced significant flooding in April and May. As we continue to build, travel and expand our footprint out into the "wilds", we need to understand that there are certain events, such as severe thunderstorms, earthquakes, drought, and infestations that are difficult to manage or prevent. The idea behind Hazard Mitigation (HM) is to lessen impacts from natural events by working with communities across the county to preemptively address potential natural disasters in order to lessen their impacts on our communities. While there are not always practical, realistic or economically feasible solutions for all issues, incorporating HM helps communities become more aware and resilient to these natural events. Whether you agree or disagree that there are changes to the earth's natural cycles or a created climate change, it is no secret that thunderstorms and flooding events are becoming more frequent, resulting in greater infrastructure impacts. Is this a result of human induced change, natural occurrences, an aging infrastructure system, development into susceptible locations or possibly pieces of all? HM aims to address the potential impacts through regulatory changes, structural improvements, education, and outreach. Although a community has the responsibility of wearing many hats, but there is also a level of personal responsibility that can be homeowner improvements, are based on common sense, and can be relatively inexpensive.

In 2020, the District hopes to be awarded a FEMA grant to update the 2016 Warren County Multijurisdictional Hazard Mitigation Plan, and we would like to hear your input. Community members will have the opportunity to discuss specific issues such as road flooding, areas susceptible to power outages, availability of backup power/shelters, etc. Help us create more resilient communities in the North Country. Visit https://www.warrenswcd.org/hazard.html to see the 2016 Hazard Mitigation Plan and view your community's information.

Green Parking at the Warrensburg Farmers Market

The District and Warrensburg Highway Department installed 1,600 ft^2 of grassed permeable pavers for additional parking at the farmers market. This this new parking area, located along side the Schroon River, is now reducing stormwater runoff instead of adding to it, as most traditionally paved impervious parking areas do. Because the pavers are grassed, the vegetation will also take up nutrients in the stormwater, reducing pollutants reaching the Schroon River. The pavers have a ten inch stone base for increased storage and infiltration rates and the recycled heavy duty plastic grids prevent soil compaction which provides good grass growing medium.

Municipal Forest Management Program

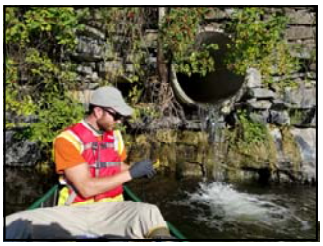
This year the District facilitated a conservation with municipal planners, the NYS Department of Environmental Conservation, and a private contract forester about managing lands for healthy forests, meeting the landowner goals, and being compliant with requirements set by municipalities that impact timber harvests in Warren County. For years the District has been providing technical assistance and has been a liaison to landowners, foresters and municipalities to ensure resource protection in our watersheds during planned timber harvests. Many municipalities have different standards for timber harvest requirements and may include best management practices for erosion and sediment control, stormwater regulations, and site plan review. The District offered a one day workshop to municipal officials and other attendees to achieve a better understanding of sound forest management practices, planning, health, and regulatory requirements. Funding for this program was provided by Lake Champlain Basin Program.

Thumbs Up for Floating Wetlands

In an attempt to root out new ideas for old problems, District staff saw an ad for “floating wetlands to treat stormwater.” After further research, they discovered these interlocking floating mats are used to help remove excess nutrients in waterbodies. The District installed this product at West Brook Conservation Initiative in Lake George and at the Gurney Lane pond in Queensbury. Each floating wetland mat grew over 70 native wetland plants from early summer to fall. As the wetland plants grew, they absorbed excess nutrients and pollutants which helped improve the water quality at these ponds. The District was able to evaluate the effectiveness of the planting locations and the productivity of the species selected for the mats. The District plans to continue to utilize the mats in numerous waterbodies throughout the county.

MS4

Outfall Sampling & Inspections …



The District has partnered with Glens Falls on their Municipal Separate Storm Sewer System (MS4) Program by providing stormwater outfall sampling and inspections for the past two years. At each of the specific outfalls, District staff conduct a series of water quality tests and a visual inspection of the pipe during dry weather. If the outfall has flow, two sample bottles are filled to be post processed by the Glens Falls water lab. All data is stored and reviewed in an MS4 form, for a full evaluation of each outfall.

2019 Community Investments

For the Betterment of Trees

The District and landowners across the county are helping to spread awareness about Hemlock Woolly Adelgid, an invasive aphid-like insect attacking Eastern Hemlocks. Through the **Adopt a Hemlock Program**, the District provides landowners with hemlock seedlings, who volunteered to monitor trees for this invader.

Community members and school kids got their hands dirty planting Sugar Maples, Red Maples and White Spruce while learning about the history of **Arbor Day** at nine events.

Community conservationists showed their support by purchasing tree seedlings, shrubs, fruit trees, wildlife nesting boxes, and wildflower seeds at the **Tree and Shrub Seedling Sale!**

For Natural Resource Education

The **Warren County Envirothon** is a time for high school students to demonstrate their understanding of natural resources and collaborate with professionals that work in forestry, soils, wildlife, and many other field-based backgrounds. Seventy high school students participated in this year's Envirothon. The winning team was from Warrensburg and advanced to the state competition in Geneva, NY. The District thanks all its supporters who sponsor, volunteer and attend this program.

In other news... the EMriver travels all over the county, including Cornell Cooperative Extensions' **Environmental Field Days**. We worked with 100 elementary students that day to build streams, watch culverts fail and learn how to better protect streambanks.

The Community Conservation Program provided a greenhouse kit for a school science program, road temperature sensor for a town highway department, a rain garden, a cistern for an agriculture program, a riparian garden, worm composter and water quality sampling equipment. The District supports and encourages conservation and educational programs with a portion of our funding. Each year our community awareness for natural resource protection grows tremendously and we will continue to show our support!

We always have opportunities for our community to get engaged in conservation projects. To find out more about our other outreach programs visit our website at www.warrenswcd.org

Historical Aerial Photos of Warren County!

Did you know in 1948 that the site of the current Queensbury School campus, was the location of the town's very first airport? The District has been working on georeferencing the 1948, 1966,1982 and 1990 aerial photos. If you're interested in seeing aerial photographs of sites like this, contact the office at (518)623-3119 - maybe you'll find a little piece of history in your very own backyard!

Purple Loosestrife

The District periodically rears and releases a biological control agent for managing invasive purple loosestrife. The insect is a small beetle that is host-specific towards purple loosestrife and has been in use in the U.S. as a control measure since 1992. We first worked with the beetle in 2004, addressing the extensive beds of purple loosestrife in Hovey Park and have released them on many properties in Warren County. In some cases there has been up to a 90% or more loosestrife reduction within a few years of a release. This year we worked with the Lake George Land Conservancy (LGLC) on rearing the beetles to release at the West Brook and properties that are owned by the LGLC.

Aquatic and Riparian Invasive Species Training

In an effort to bring awareness about the rapid spread of invasive species in our communities, the District hosted a series of trainings focused on riparian and aquatic invasive species. At the trainings attendees studied invasive plants and native look-a-likes, while District staff provided them key plant identification features. District staff described long-term management and monitoring, proper management techniques, spread prevention, disposal, and alternative plantings for these riparian and aquatic invasive plants. These trainings were funded through Lake Champlain Basin Program and offered at Gurney Lane Recreational Area in Queensbury and West Brook Conservation Initiative in Lake George. An additional training was offered with Lake George Land Conservancy at the Town of Hague Community Center. As of result of this training, the District is now offering loan items such as uprooters, thatch rakes, and Scouting and Restoration Tool-kits for managing and identifying these invasive species.

Conservationist of the Year—Steve Lovering

In 2019 the District recognized Steve Lovering, Director of the Queensbury Parks and Recreation (QPR), as its Conservationist of the Year. For many years, Steve has provided enthusiasm and support to a variety of joint QPR-District projects and programs in the town. The District has worked with the QPR on Halfway Brook (proper), Hovey Park, Gurney Lane, Hudson Point Nature Preserve, Hudson River Park, Glen Lake Boat Launch, Meadowbrook Preserve and Rush Pond Trail. The projects are varied and include invasive species control, habitat improvement, trail establishment, water quality improvements, and trailside education.

Steve understands the importance of local lakes, streams and other natural resources and works with the District for project ideas and the implementation of projects for protection of these critical features. He requests assistance with planning and implementation for a variety of projects including trails, habitat improvement, environmental education, and water quality. The District believes that Steve's willingness, his foresight when it comes to conservation projects and his support of resource protection is absolutely essential for the long-term sustainability and improvement of our local natural resources.

Ronald Montesi Conservation Recognition Awards

This award is given to an active member of locally-led conservation projects with the District and has gone above and beyond to protect natural resources of Warren County... 2019's award recipients:

- **Community, Work & Independence** (CWI Team) has worked with us for the last two years to bring over 40 volunteers out three times each summer to sample stormwater outfalls, install storm drain markers and participate in stream cleanups. Halfway Brook has never been so clean!
- **Teresa Whalen of Adirondack Harvest** has played an active roll not only within her community but with her participation and willingness to work with the District on promoting agriculture in Warren County. Teresa puts her best foot forward to get conservation projects done!
- **Leon Steves** has worked with the District on projects which include Queensbury Land Conservancy (QLC) trails and the Town's MS4 program. Leon reaches out to the District for advice to minimize impacts for QLC projects and requests permit assistance....he also can be counted on to assist with the yearly Halfway Brook Stream cleanup!

WARREN COUNTY
S.W.C.D.

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 2019 operating expenses were $514,672. Our 2019 funding allocation from Warren County was $339,355, 0.22% of the 2019 approved 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.

2019 SWCD Board of Directors

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