

Seneca County Soil and Water Conservation District

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Seneca Falls, NY 13148

www.senecacountyswcd.org

Phone: 315-568-4366 Ext. 4

March 2020 Newsletter

Upcoming Events

- HABS and Invasive Mussels, What's the Connection?
March 31, 2020, 6:00 PM - 7:30 PM, Seneca Falls Community Center
- Seedling Sale Pre-Orders & Payments due April 3, 2020
- Seedling Sale Pick Up & Overstock Sale - April 24, 2020, 9 AM - 5:30 PM, Seneca County Fair Grounds

Board of Directors:

- Michael Reynolds, County Rep & Chairperson
- Ronald McGreevy, County Rep
- Elisabeth Freier, Farm Bureau Member & Treasurer
- John Hunt, Grange Member & Vice Chairperson
- Charles Sumner, Member At Large
 - Board of Directors meet the fourth Monday of every month at 9:30 AM (unless noted otherwise; check our website for changes).

District Staff:

- Erin Peruzzini, District Manager
- Kristin White, Bookkeeper & Secretary to the Board
- Christopher Creelman, District Technician
- Matt Everdyke, District Technician

USDA/NRCS Staff:

Ron Vanacore, Resource Conservationist

Eastern Finger Lakes Cover Crop Initiative

The New York State Department of Agriculture and Markets and the New York State Department of Environmental Conservation (DEC) announced funding for the Eastern Finger Lakes Cover Crop Initiative. The initiative will help farmers use cover crops to reduce erosion and protect water quality in and around Cayuga, Owasco, Skaneateles and Otisco lakes.

Soil and Water Conservation Districts will work with farms in Seneca, Tompkins, Cayuga, Onondaga and Cortland counties to implement cover crop projects. The state's Agricultural Environmental Management (AEM) framework will be utilized to plan, implement and evaluate projects. Funding will be made available to farms to incorporate cover cropping into their annual cash crop planting systems.

Typically planted in late fall following the harvest of traditional plantings, cover crops improve soil health for the spring. Cover crops also help reduce erosion and runoff, absorb excess nutrients, filter surface water and ground water, add organic matter to soil, reduce weeds, combat pests, sequester carbon dioxide emissions in the soil and provide benefits to pollinators. Some common cover crops in New York State include rye, oats, wheat, tillage radishes, triticale, buckwheat, peas, clover and sunflowers. Cover crops are an excellent best management practice which promote soil health and protects water quality. Seneca County currently has two farms enrolled in the Eastern Finger Lakes Cover Crop Initiative with 250 acres of cover crops planted in 2019.



Heavy Use Area Runoff Management System

Seneca SWCD completed a livestock heavy use area runoff management system in conjunction with NRCS. Roof water and access road runoff drained through the calf hutch area to a tributary of Cayuga Lake. A new calf hutch pad was constructed



with a Vegetated Treatment Area (VTA) that will filter out any potential nutrients from entering the nearby stream. Roof gutters and underground outlets were installed to divert clean roof water around the new calf hutch pad.



Calf Hutch Area Before



New Calf Hutch Area and VTA

Access Control & Stream Crossing

Livestock were crossing and had access to the stream. With the utilization of grant funding the district was able to fence the livestock out of the stream and construct a culvert crossing, preventing nutrients from entering a Cayuga Lake tributary.



Before



After

Manure and Ag Waste Treatment System

Manure was stored in a large pile adjacent to the barnyard and residual runoff was not contained or treated and drained to Sheldrake Creek. A Manure and Ag Waste Treatment System was installed to compost the manure and have runoff directed to a Vegetated Treatment Area (VTA). The VTA will filter out any potential nutrients from entering the nearby stream.



Before



After

AgriChemical Mixing Facility

Two AgriChemical Mixing Facilities were installed in Seneca County in 2019. Funded by Ag Non-Point Source, these facilities provide storage of agrichemicals, allow for a clean safe mixing environment and in the event of a spill will contain and capture all spilled material.



Prescribed Rotational Grazing Systems



After

Before

To keep livestock out of the stream, a fence was installed and a new water supply was added.



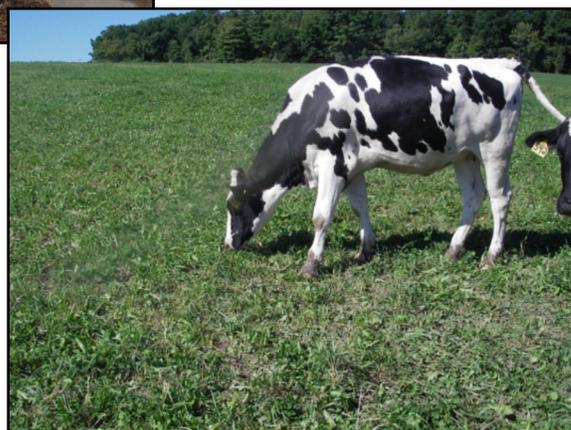
8 acres of previous crop land was converted to grazing land.



Before



After



Clean Water Exclusion



Runoff created erosion in a low swale of a crop field eroding valuable soils and nutrients. A grassed waterway was designed to carry a large storm event taking this area out of production and safely conveying storm water to a stable outlet. The waterway also provided an outlet for roof water that was collected near the project site.

Rock Lined Waterway



Seneca SWCD staff discovered this severely eroded ditch channel that leads to a tributary of Cayuga Lake. With a severe head cut jeopardizing access to an adjacent field, this quickly became a priority for the landowner. Utilizing grant funding, the District was able to assist the landowner by securing field access as well as preventing future erosion and associated sediment and nutrients from entering Cayuga Lake.

Seneca County Soil & Water Conservation District Receives Funding for Climate Resilient Farming

Governor Andrew M. Cuomo announced \$2.3 million will be awarded to 24 farms across the state through the Climate Resilient Farming (CRF) Grant Program. Launched by the Governor in 2015, the program helps farms reduce their operational impact on the environment and address the impacts of extreme weather events resulting from climate change.

County Soil and Water Conservation Districts were awarded grants on behalf of farmers in one of the following three project tract categories: agricultural waste storage cover and flare for methane reduction, on-farm water management, and soil health systems. These Best Management Practices (BMP's) reduce greenhouse gas emissions, enhance soil health, promote energy savings and emphasize water management to mitigate the effects of periods of drought on crops and livestock, as well as heavy rainfall and flooding.

Seneca County Soil and Water Conservation District was awarded \$106,100 to work with two farms in the Cayuga Lake Watershed on various water management systems that will bolster resiliency to flooding and erosion. Implementation of runoff reduction BMP's have been identified as priority actions and align with goals set forth in the Cayuga Lake Harmful Algal Bloom (HAB) Action Plan.

Seneca County SWCDs District Manager, Erin Peruzzini says, "Seneca County is all too familiar with the increasing frequency of extreme storm events and the subsequent erosion and flooding impacts it has on our natural resources. Not only will this funding help farmers continue to support productive and environmentally sustainable agriculture, but it will also aid in protecting Cayuga Lake, an invaluable resource."

In order to participate in the CRF Grant Program, farmers must participate in the Agricultural Environmental Management (AEM) Program. AEM is a voluntary, incentive-based program that helps farmers make common-sense, cost-effective, and science-based decisions to meet business objectives while protecting and conserving New York State's natural resources. By participating in AEM, farmers can document their environmental stewardship and further advance their positive contributions to their communities, our food systems, the economy, and the environment.

If you have any questions about the Climate Resilient Farming grant or how to participate in the AEM program please call the Seneca County SWCD District Manager, Erin Peruzzini at (315) 835-6039.



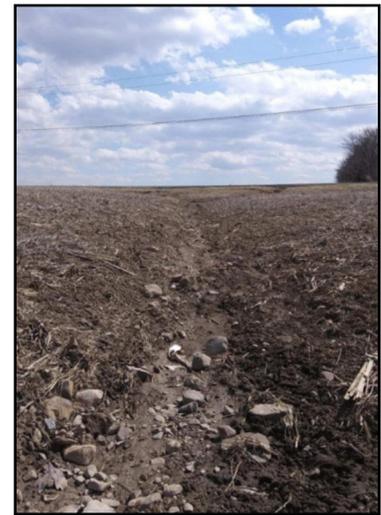
Erosion and Sediment Control Projects

to Improve Cayuga-Seneca Canal and Cayuga Lake Water Quality

The Seneca County Soil & Water Conservation District has been awarded \$40,000 through an Erosion and Sediment Control Implementation Grant in the Genesee River and Finger Lakes Watershed. These funds are sourced from the New York State Department of Agriculture and Markets, and the NYS Soil & Water Conservation Committee. This opportunity is designed to improve the water quality of Lake Ontario and to reduce the impacts of harmful algal blooms in the Finger

Lakes. With this grant award, the Seneca County SWCD will be working with four local farms to implement projects that will reduce erosion, sediment and associated nutrients from entering our local waterways. Two of these on-farm projects are in the Cayuga-Seneca Canal Watershed, which will include a diversion, two grassed waterways, and an underground outlet. The other two on-farm projects are in the Cayuga Lake Watershed, which will consist of two diversions, and a water and sediment control basin. These projects will work to slow down water running across farm fields, capture sediment and nutrients from flowing into our local waterways and protect the land from

erosion and future damage. These Best Management Practices are planned for the 2020 construction season. This funding opportunity is directly aligned with the NYS Department of Agriculture and Market's goal to prioritize Ecosystem-Based Management in the Genesee River and Finger Lakes Watershed. If you have any questions about these upcoming projects, please call the Seneca County SWCD District Manager, Erin Peruzzini at (315) 835-6039.



These above photos show current erosion issues on Seneca County farmland. With the funding from Ag & Markets Erosion and Sediment Control Implementation Grants the Seneca County SWCD will be able to implement on-farm projects to fix these erosion issues and implement long-term projects that will stabilize valuable soils and protect water quality.

Critical Area Treatment BMPs

The Seneca County Soil & Water Conservation District Hydroseeded and mulched approximately 100,000 sqft of bare soils in critical areas. Projects include waterline installations, culvert replacements, road ditch cleaning and other municipal projects where there was soil disturbance. While ditch cleaning is necessary to maintain proper drainage, seeding these critical areas will establish vegetative cover to keep soil in place, and reduce sediment loads from entering nearby waterbodies.



Future Municipal Programs & Projects

Seneca SWCD to hold training for Highway Departments



The Cornell Local Roads Program offers numerous courses in best management practices for highway departments and municipal officials. Utilizing the Community Resiliency Training Grant, Seneca SWCD, Cornell Local Roads, and the Seneca Lake

Intermunicipal Watershed Organization will provide several regionally tailored Drainage workshops for highway departments to be held in the Seneca and Cayuga Lake watersheds; focusing on roadside drainage, erosion control and culvert installations.

Seneca County SWCD Receives Engineering Planning Grant

Seneca County SWCD secured \$30,000 through NYS DEC's non-ag non-point source grant, to complete an engineering report for an aging culvert on County Road 153. A culvert sized to current climatic conditions that adheres to

North Atlantic Aquatic Conductivity Collaborative guidelines will offer a climate resilient conveyance and decrease nutrient and sediment loads to Cayuga Lake; one of the leading factors in harmful algal bloom growth.



2019 Aquatic Plant Harvesting Report

While the Seneca County Soil & Water Aquatic Weed Harvesting program was centered around removing and eliminating the spread of invasive aquatic weeds, the objective has transitioned to increase the accessibility and usability of the county's waterbodies while leaving them ecologically intact. Aquatic vegetation is of the utmost importance for maintaining water quality and providing shelter for a large cross section of aquatic life found in our waterbodies.

A careful balance must be struck to meet the demands of human uses of the lakes as well as the needs of other organisms who rely on the lake's ecosystem for survival. The Aquatic Weed Harvesting program seeks to provide relief



to areas of the county's waterbodies where recreational usability is impaired. Due to the shallow waters and nutrient rich sediment bed, the Northern end of Cayuga Lake and sections of the Cayuga-Seneca Canal are abundant with aquatic weeds.

Legacies of nutrient inputs, solar radiation and ready supply of water ensure that these waterbodies are highly productive. From hindering navigation and swimming, to creating water and air quality issues during mass die off events, aquatic vegetation can dramatically interfere with people's use of these waterbodies. However, it's important to remember that while aquatic vegetation may be a nuisance, it is an unavoidable reality in aquatic ecosystems and is vital to maintaining ecological stability.



Seneca SWCD's larger of 2 harvesters typically operates along Cayuga Lakes Northwestern shoreline from the Northern shore to the Red Jacket Yacht Club. However, due to mechanical issues with the harvester, Seneca SWCD contracted with Cayuga SWCD to harvest in Cayuga Lake for the 2019 season.

The smaller of Seneca SWCD's two harvesters operates in the canal around Oak Island, several marinas, the Seneca Lake Outlet & Seneca Lake State Park Marina.

The summer operation focusses on removing invasive aquatic weeds as well as clearing navigational channels out to deeper water. Harvested weeds are collected and transported to an off-site location and allowed to compost. The majority of weeds harvested in 2019 are pictured below.



Starry Stonewort - Invasive



Eurasian Watermilfoil - Invasive



Curly-Leaved Pondweed - Invasive



Eelgrass - Native

In addition to mechanical harvesting, the SWCD in partnership with the FL PRISM <http://fingerlakesinvasives.org/> conducted a Water Chestnut hand pull event around the Canoga Marsh area and Northwestern shoreline of Cayuga Lake. This event produced 33 lbs of Water Chestnut. Reproduction occurs from fragmentation of the rosettes and thorny nutlets which mature in late summer, making early removal key.

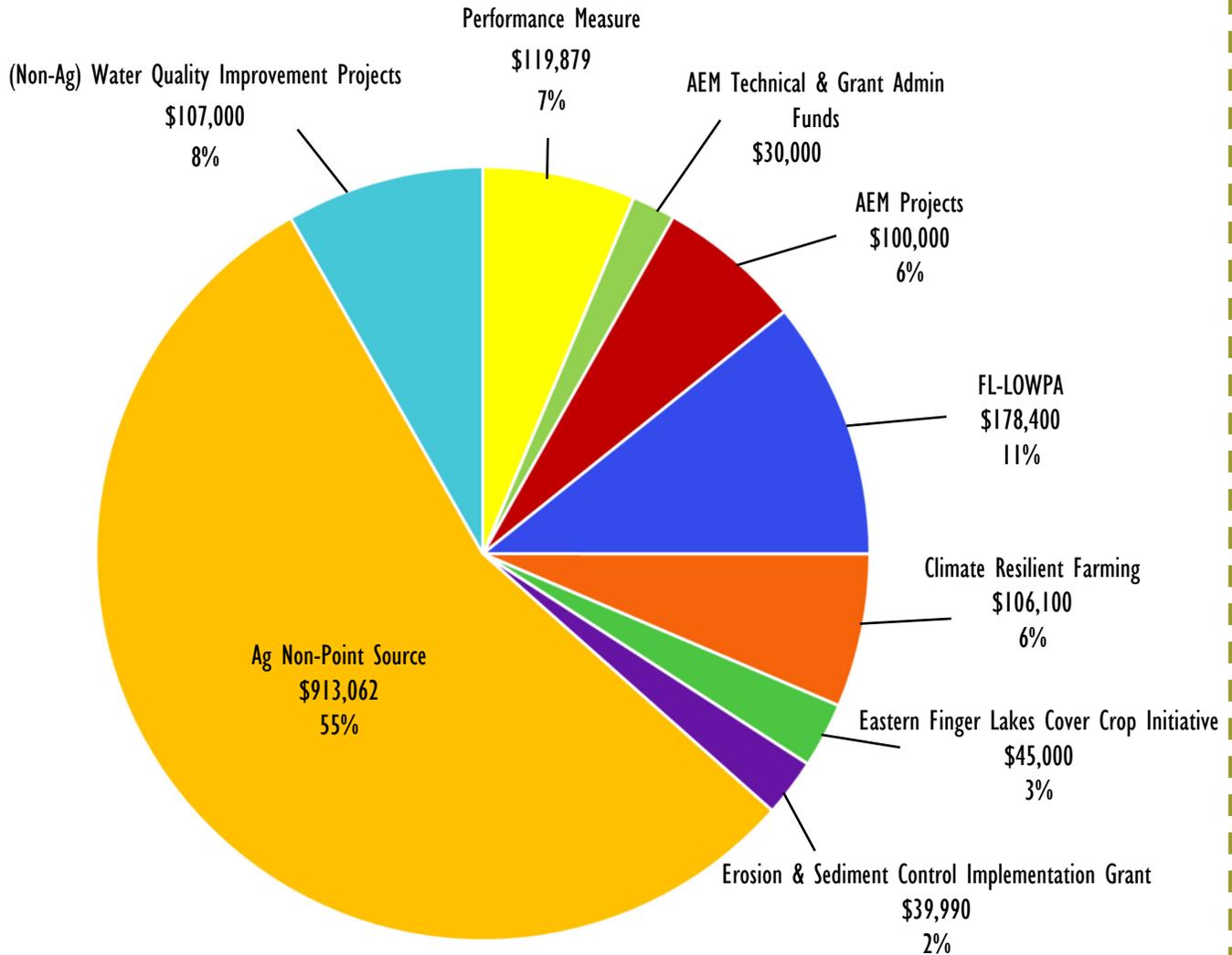


2019 Water Chestnut hand pull volunteers



Water Chestnut - Invasive

Current Seneca County SWCD Grant/Project Funding



Seneca County receives funding by meeting NYS State performance measure requirements, participating in the Agricultural Environmental Management (AEM) program, the Finger Lakes Lake Ontario Watershed Protection Alliance (FL-LOWPA) and through competitive grant funding opportunities. These funds assist with the cost share for implementation of Agricultural Best Management Practices, Municipal projects (road and streambank stabilization and culvert replacements) as well as conservation initiatives education and aquatic invasive species eradication; allowing Seneca County SWCD to facilitate in the maintenance of water quality while supporting Agricultural tourism and the economic viability and sustainability of Seneca County's community.

Total Grant/Project Funding = \$1,669,431