

Tioga County Soil and Water Conservation District



Annual Report 2023

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District Staff

Wendy Walsh	District Manager
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Danielle Singer	WQ & Nutrient Mgmt. Specialist
Connor Hubbard	Engineering Technician
Heather Gulliford	AEM Specialist

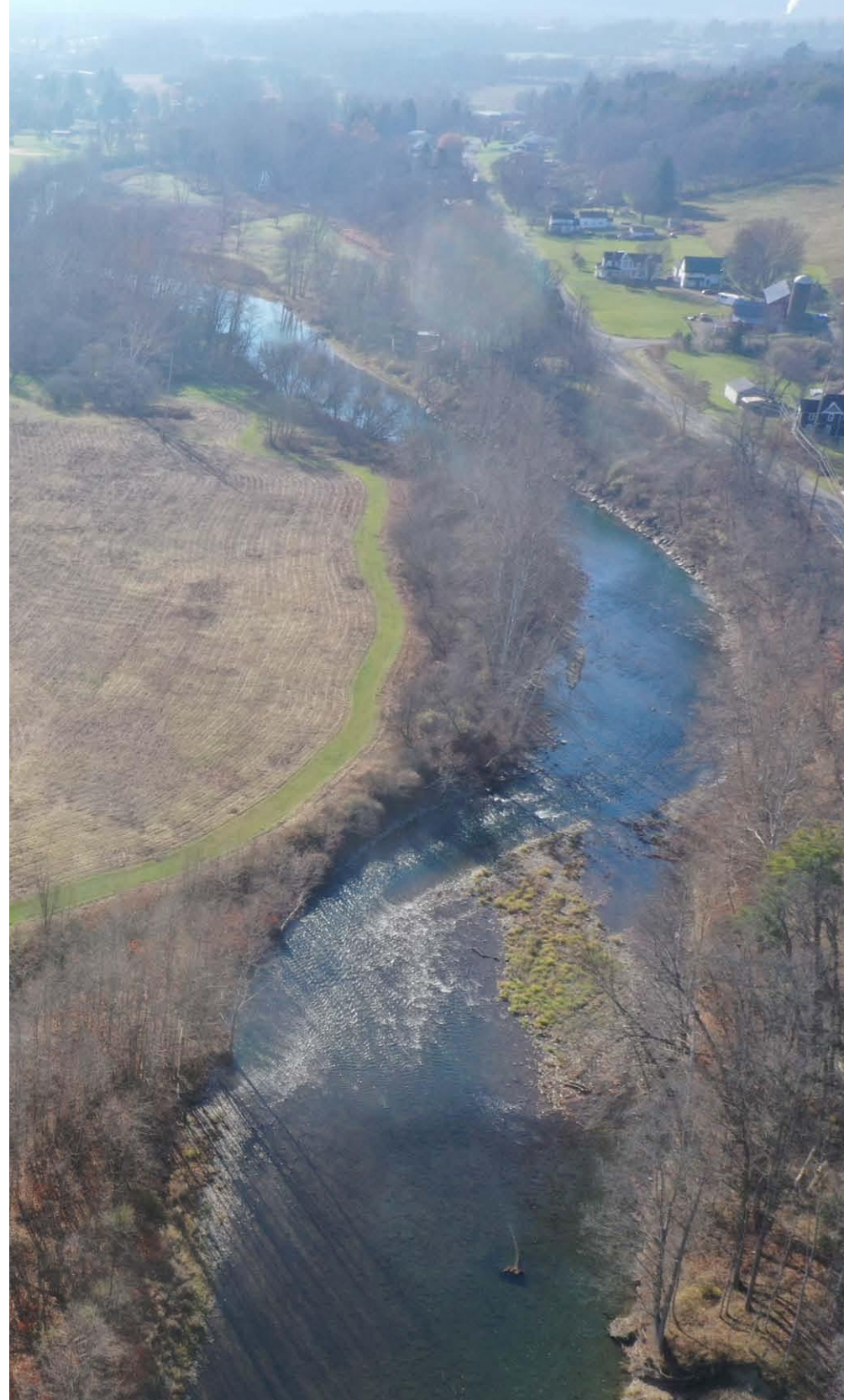
2023 Board of Directors

Dale Weston	Chair, Legislative Rep
Tracy Monell	Vice Chair, Legislative Rep
Mark Kwiatkowski	Treasurer, Grange Rep
Tom Zorn	Farm Bureau Representative
Eileen Selnekovic	Member At Large

A Note From The District Manager...

I can honestly say where did 2023 go.... SWCD staff were busy with numerous projects and providing technical assistance not only in our county, but surrounding counties as well, as we play a large role in the Upper Susquehanna Coalition. We were successful in writing and receiving a few grants to keep us busy in 2024 and beyond, as well as wrapping up a number of implementation projects that we funded through our AEM and other state awards. We continued to focus on education and outreach regarding our available programs at the County Fair and we had one of our largest Sundaes at the Farm event ever!

Wendy Walsh



Agricultural Program

The majority of our work with farms in the county is done through the Agricultural Environmental Management (AEM) Program. It is a statewide voluntary program led by Soil and Water Conservation Districts to help farmers make smart cost-effective decisions that meet business objectives while protecting natural resources.

We work with interested farmers to create conservation plans that make them eligible to apply for funding. From large state and federal programs to local District and watershed programs, we planned and implemented many best management practices (BMPs) on farms in the county this year.





2023 Project Spotlights

Top Left Photos: We completed 15 small projects with the \$100,000 awarded to us through the state's AEM Program. The projects ranged from riparian forest buffer maintenance and livestock exclusion fencing (right photo) to livestock watering systems and run-off water catchment systems (left photo)

Bottom Left Photo: In 2022 we received a NYS Climate Resilient Farming (CRF) award for Round 6 of the grant program for a storm water retention basin and diversion ditch outlet stabilization to protect the adjacent crop fields and sugar bush from erosion. We completed the construction on the 1.5 acre basin and diversion ditch in 2023. The basin will store approximately 1.4 million gallons of storm water during heavy precipitation events and release it slowly over 24 hours.

Top Right Photo: We were awarded a NYS Agricultural Non-Point Source Pollution Abatement and Control Grant (AGNPS) in Round 27 to complete stream corridor restoration projects on three farms. The projects were in construction from 2022 to 2023. One project stabilized gully erosion at the outlet of diversion ditches and planted a wetland buffer. Another project created a retention pond similar to the CRF R6 project, stabilized livestock stream crossings and planted a riparian forest buffer. The final project (photo) stabilized two road ditch outlets that flow to the stream, created an access road to protect the riparian and wetland areas, stabilized a livestock stream crossing, installed a livestock watering system and created a riparian forest buffer (to be planted in 2024).

38

Farms served

1

Soil Health Meeting Held

18

*Previously Installed Systems
Were Re-Inspected*

98

Soil Samples

5

Manure Samples

1,415.5

Acres Of Cover Crops

Stream Program

The District stream program is focused on assisting municipalities and private landowners with environmentally sensitive maintenance and repair, while keeping in mind the need for safety, stability, and private property rights. The District works toward these goals by providing a variety of services: monitoring, mapping of stream issues, education, outreach, technical assistance and advice in regards to permit application and design, securing funding for implementation, construction oversight, hazard mitigation planning, flood recovery, and culvert assessments.

Owego Creek Toe Wood Project

A deep pool in this section of stream continually eroded the bank and caused the stream to laterally migrate in to the adjacent crop field. The District secured funding, completed the survey, design, permit applications, bidding and construction oversight for this project. The toe wood system for streambank stabilization has large rock placed in the toe to prevent undermining, with large root balls and coconut fabric soil lifts with willow plantings placed between. This system prevents erosion and is the most natural method to increase habitat value as well as stability on the streambank.



Hazard Mitigation Support and Disaster Recovery

Since 2013, the District has contracted with the County to provide hazard mitigation coordination services. The Federal Disaster Mitigation Act of 2000 requires local governments to prepare and update a hazard mitigation plan that addresses natural disasters. The District, as coordinator of the plan, works with the County and all 15 municipalities on project implementation. Priorities of the plan include flooding and flood mitigation projects, with the goal of reducing flooding and flooding impacts to our communities.

Tioga County Anglers partner with SWCD, DEC, TU, and US Fish and Wildlife Service

The Pool Digger structure pictured on the left below made of wood, cobble stones and gabion fencing and others throughout this segment of the West Branch of Owego Creek. They were originally built between the late 1970s and early 1980s through a partnership with NYS DEC, and the Tioga County SWCD. The purpose of these structures were to stabilize the stream bed and banks, while deepening the water slightly on the upstream portion of the structure, and to create and maintain a scour pool on the downstream side to increase trout habitat. The structures have been in service for many years, and were repaired at least once in the mid 2000's by a Tioga County SWCD summer youth crew. No doubt, local fisherman have frequented this location for hours of fishing enjoyment, especially considering the parking area being so close to the stream. The small parking area here is owned and maintained by the NYS DEC, but the reaches of stream available for fishing are privately owned and enrolled in the DEC PFR (Public Fishing Rights) program. The Tioga



County Anglers fishing group noticed the two pool diggers nearest the parking area were falling in to disrepair and spearheaded a project to get them replaced. It was determined that rock cross-vanes would be the most cost effective method to attain this goal. A rock cross-vane is an in stream structure constructed from very heavy stone that spans the stream width, while being angled upstream, and down in to the stream bed. These structures essentially create the same conditions as the pool diggers in elevating the pool depth slightly above the structure, and creating and maintaining a scour pool on the downstream side. These structures were chosen due to the heavy and permanent nature of the stone being used.



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7

Projects Implemented

7

DEC Stream Disturbance Permits Received

3,400

Feet of Stream Bank Stabilized

56

Landowners assisted with stream related technical assistance

17

Army Corps of Engineers Nationwide Permits Received

Buffer Program

The Tioga County Soil and Water Conservation District had another successful season of riparian forest buffer establishment in 2023. Over the last six years the District has been dedicated to expanding our Buffer Program to promote the restoration and long-term functionality of riparian areas for water, soil, and habitat quality. The promotion, implementation, and vitality of riparian buffer projects continues to be a high priority for the District. The District promotes riparian buffer creation and restoration via education, outreach, and technical assistance.



In the spring of 2023 the Canawanna Nature Preserve was planted with 75 larger stock trees by 18 student volunteers.



Buffer Volunteers

An integral part of what makes Tioga County's riparian buffers possible is the support of our volunteers. The District is always looking for ways to create new partnerships and forge new friendships with those in the community who wish to make a meaningful difference in the watershed. In 2023, 162 volunteers worked with the District to help plant riparian and upland buffers all across the county.

Local school groups participated in plantings on private land in Candor, NY. 360 stems were planted and 46 students participated.



Buffer Monitoring & Maintenance

Our Buffer Steward intern collects and reports critical plant data, and performs continued monitoring & maintenance activities to ensure successful establishment of the plants. This information collection and extra set of hands has allowed the District to better support landowners and manage problems that arise in buffer plantings more effectively. The work done by our Buffer Stewards over the past five growing seasons has positively impacted the survival and success of Tioga County's buffer plantings, and has aided in achieving nutrient reductions, improved water quality, and expansion of wildlife habitat!



Our Buffer Steward monitored 108.5 acres in Tioga County during the summer monitoring season.

118.4

Total Acres of Maintained Buffer in Tioga County

27.8

Acres of New Buffer Created

6,115

Trees and Shrubs Planted

14

New Project Sites

18,847

Total Trees and Shrubs Planted in County Buffers Since 2018

2,393

Members of the community reached

162

Community members volunteered with the District to assist with projects

14

Outreach and education events held

4

Local Schools/Community groups volunteered with the District

25.5

Volunteer hours donated

Outreach & Education

We believe that engaging and involving county residents in our work creates a strong and more resilient community. Throughout 2023, the District supported the regional Envirothon, local stream clean-ups, held various volunteer plantings, staffed education booths, and organized several educational events across the county which resulted in meaningful engagement with thousands of our county residents.



District staff and the Agricultural Resource Group (ARG) coordinated the Sundaes at the Farm Event that was held at Engelbert Farms in July of 2023. The event celebrates local agriculture at a different dairy farm in the county each year. Over 1,000 people from the community attended!

The Regional Envirothon took place at the Sportsman Club in Owego, NY. Tompkins County won first place in the Southern Tier Region.

New York Soil and Water Conservation

Committee Funding Support

Through the NYS Soil and Water Conservation Committee, Districts statewide are eligible to receive funding to complete implementation projects that further our mission and goals. In 2023, Tioga SWCD requested Part B Funding and received \$6,000 to support the implementation of a grazing system and riparian forest buffer. Additionally, Part C funding is awarded competitively to Districts who meet the required performance measures established by the state. The District was awarded \$181,746.76 total in part C funding.



Part B Funding

The District developed a rotational grazing plan for the Owego Apalachin Central School District FFA program. Part B funding was utilized to install infrastructure needed to implement the grazing plan. The project



includes fencing, a watering system and 2 riparian forest buffers (4.5 acres). The project is being completed in phases, in the fall of 2023 a paddock (5 acres) along with waterlines for the system were installed. The second phase of the project will be completed in 2024 with planting of the riparian forest buffer system as well as completion of the fence construction. District staff provided training for the fence construction and the fence was installed by the FFA and Animal Science students. The riparian forest buffer will be monitored and maintained by the District and students at the school.

Part C Funding

Part C funding was used to support technical assistance provided by staff to landowners and municipalities. The technical assistance provided by staff included culvert assessments, stream permitting and non-Ag related buffer planning and implementation. Part C funding was also used to support outreach events, education events, and training. The District was able to hold its first annual Soil Health Meeting in February of 2023. The District also supported some small project implementation that involved paying for the transportation of trees to be used on a 2024 stream restoration project utilizing a toe wood system, as well as some mowing on a non-ag riparian forest buffer site.

74

*Water Quality and Land Use
Management Technical
Assistance Requests*

15,118

*Tree and Shrubs
sold at Annual District Sale*

17

*Professionals trained in
Erosion and Sediment
Control*

2

*Flood Mitigation
Assistance/Projects*

28

*Total Permit Assists
(Wetland, Stormwater, Historic
Preservation, Streams, CAFO,
& Grass Carp)*



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