



2022

ANNUAL

REPORT





Manager's Message

Jonathan Negley
District Manager

I am always amazed at how much conservation can get on the ground in a year through the Soil and Water Conservation District. I shouldn't be! We have an amazing staff that come to work everyday with an enthusiasm and energy to tackle the next project and solve complex issues in the County. We also have a diverse Board of Directors that bring unique perspective and direction to the District from rural, urban and suburban perspectives. We also have great partners that support/guide/teach and challenge us to accomplish the goals of the District. As you read through this report, I cannot highlight enough about the staff and directors that make this a great organization to be with and help you make wise decisions regarding the usage of natural resources in our County. You'll find throughout the pages of this report the great work that the District team has completed in 2022.

Technical assistance and project implementation make up the bulk of our workload for District staff. \$1.05 million dollars worth of construction expenses ran through the District's books in 2022 with a majority of that going right back into local hands and on-the-ground conservation projects. 2,247 acres of agricultural land was assessed for tax abatement through our Soil Group Worksheet program in cooperation with the Tompkins County Assessment office. Capacity for 134,400 lbs of Phosphorus and 154,560 lbs of Nitrogen was built to be stored on farms annually through funding with NYS Ag & Markets. Over 9 miles of hydroseeding was implemented, 84 contractors were trained through the NYS 4 hour erosion and sediment control classes. 54 technical assistance request were responded to with onsite visitation and planning for future projects.

As we look ahead, we see many challenges and opportunities for conservation in our community. Climate action goals set by NYS are going to stretch Districts in ways never before seen in generations. These are exciting and challenging times to be living in for our conservation friends, family and neighbors. We look forward to what 2023 has in store for us as we partner with all of you in making sound decisions regarding the conservation of our Soil and Water resources!

A handwritten signature in black ink, which appears to read "Jonathan Negley". The signature is written in a cursive style.

Conservation District Manager

BOARD OF DIRECTORS



Aaron Ristow
Member At Large
Board Chair



Randy Brown
County Legislator
Director



Callan Space
Farm Bureau
Treasurer



Deborah Dawson
County Legislator
Director



Alan Teeter
NYS Grange
Vice Chair

STAFF



Paul Gier
Natural Resource Program Specialist



Angel Hinickle
Conservation Resource Specialist



Andrew Stadler
Conservation Technician



Devin Cox
Conservation Technician



Samantha Smith
Senior Account Clerk



Tom Mallory
Part-time Water Resource Engineer

Financial Report

INCOME

LOCAL	\$ 6,307.57
COUNTY	\$ 336,083.00
STATE	\$ 265,539.57
GRANTS	\$ 1,053,598.59



TOTAL \$ 1,661,528.73

EXPENSE

STAFF SALARIES	\$ 467,564.28
EQUIPMENT	\$ 12,774.66
OFFICE SUPPLIES	\$ 4,777.54
TRAVEL & TRAINING	\$ 3,314.29
OUTREACH & EDUCATION	\$ 4,978.87
INSURANCE	\$ 10,677.10
CONTRACT SERVICES	\$ 51,785.55
CONSERVATION PROJECTS	\$ 1,053,598.59

TOTAL \$ 1,609,470.88



CONSERVATION BY THE NUMBERS



54

Technical Assistance Requests



11

Stormwater Municipalities Assisted



84

Contractors Trained via NYSDEC Erosion & Sediment Control Course



24

Permit Assistance Requests



5

Road & Highway Assessments



TECHNICAL ASSISTANCE



2,247

Acres of Agricultural Assessment



12

Tier 1 Agricultural Environmental Management (AEM) Inventories



10

Tier 2 AEM Assessments



3

Tier 3 AEM Conservation Plans

TECHNICAL ASSISTANCE

Staff spend a large proportion of their time providing technical expertise to farmers, landowners, contractors, Highway Departments, Planning Departments, watershed & lake associations among others. This expertise can be provided in many forms including (but not limited to):

- Sitting on advisory boards for:
 - watershed/county plans such as the NYS Department of Health's Drinking Water Source Protection plans for the Cornell University and the City of Ithaca.
 - Clean water plans such as the Owasco Lake 9 Element Plan, Cayuga Lake draft TMDL, and Chesapeake Bay TMDL.
 - Tompkins County's Hazard Mitigation Plan update and implementation
 - Tompkins County's FEMA FIRM (Flood Insurance Rate Map) updates.
 - Tompkins County Agriculture and Farmland Protection Board
 - Attending Farm Bureau Meetings
 - NYS Soil and Water Conservation Society
 - NYS Envirothon Committee
 - Owasco Lake Watershed Management Council
 - Tompkins County Water Resources Council
 - Finger Lakes – Lake Ontario Watershed Protection Alliance & The Upper Susquehanna Coalition
 - Cayuga Lake's Watershed Intermunicipal Organization
- Reviewing Stormwater Pollution Prevention Plans for 6 Towns in County
- NYS 4 Hour Erosion and Sediment Control Trainings to local contractors
- Surveying, Designing, Permitting and overseeing conservation projects on private and municipal lands
- Providing conservation technical assistance to private landowners on erosion, drainage, pond maintenance, and general soil health improvements.
- Securing grant funding for private landowners in the County



PARTNERS



CONSERVATION BY THE NUMBERS



Acres of Cover Crop



Feet of Hydroseeding



Million Gallons of Ag Waste Storage



Road Crossing Culvert Replacements

IMPLEMENTATION PROJECTS



Pounds of nutrients saved from entering waterways



Acres of Hydrilla Treatment Assistance



Feet of Streambank Stabilization



Tier 4 AEM Conservation Projects funded



Sq. Ft. of Riparian Buffer

Watershed Spotlight

Cayuga Lake



COVER CROPS

Cover Crops are a Best Management Practice that the District utilizes extensively to promote soil health, control erosion, and improve water quality. In this region of Central New York, cover crops are difficult to establish and maintain throughout a harsh fall and winter growing season. Early germination is critical in ensuring a stand of crops that will meet its intended plan goals. While regional partners utilize a variety of methods of implementing cover crops such as equipment rental of no-till drills or interseeders, we find that funding going directly to farms to implement cover crops encourages a much broader implementation mechanism. This in turn leads to greater water quality and improved soil health.

A mixture of funding was utilized to implement cover crops in 2022 in the Cayuga Lake Watershed. The Fingerlakes – Lake Ontario Watershed Protection Alliance, NYS Agricultural Non-Point Source Pollution Abatement Program, and NYS Aid to Districts all supported important cover crop work on the landscape in the Cayuga Lake Watershed. Approximately 2,702.5 Acres of cover crop were implemented within the watershed.



NUTRIENT STORAGE

The Tompkins County Soil and Water Conservation District partners with a multi-agency team through its AEM Program to implement a variety of Nutrient Management Best Management Practices. One excellent way we do this is by sponsoring projects that help farms store nutrients on their farms to apply with a "4R" concept in mind. This management strategy encourages farm operators to apply nutrients (manure, organic/chemical fertilizer, etc.) with the 1 – right source, 2 – right rate, 3- right place, and 4 – right time in mind. While storage structures may not address all of the 4 R's in a farm's nutrient management plan, it definitely helps a farm better manage the rate and timing of nutrient application and thus, secondarily, allows for better sourcing and placement planning.

Sherman Farm Storage

Protecting Owasco Lake from harmful nutrient runoff, the Sherman Farm out of Dryden implemented a 2.1-million-gallon nutrient storage structure that now allows the farm the ability to store 8-month's of manure that would have been previously daily spread. Nutrients can now be applied in the correct 4R fashion. Previously this farm had only a few days storage ability which forced the farm operators to either daily spread or transport to remote facilities for storage. Properly sited behind the freestall facility, this storage is easily accessible by the farm to fill during inclement weather and custom operators to empty onto nearby fields at the right time for plant uptake. Funding for this project came from the NYS Agricultural Non-Point Source Pollution Abatement Program and the farm.

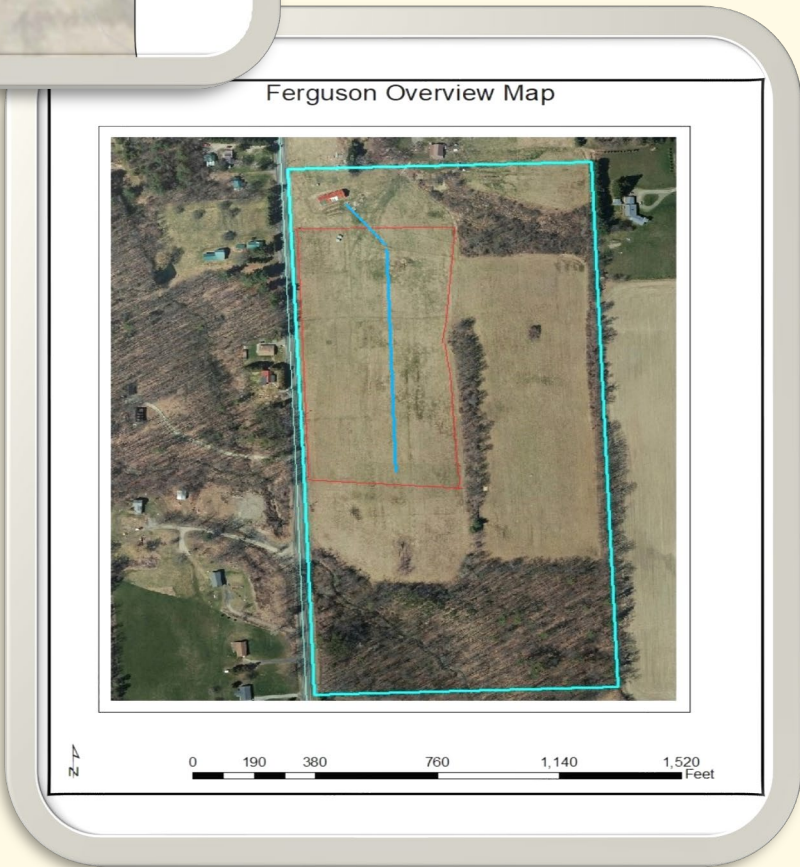


AEM TIER 4 PROJECTS

The Tompkins County Soil and Water Conservation District partners with the NYS Department of Ag & Markets to implement the Agricultural Environmental Management Program. Through this 5 Tiered approach to environmental management on farms, funding in the amount of \$100,000 per round (2 year cycle) is made available to each county in NYS to implement smaller scale projects on farms.

Van Noble Hog Farm Barnyard Improvements & Laughing Goat Fiber Farm Grazing Management Upgrades

Funding this round went to 2 farms in the County to implement a barnyard improvement project on the Van Noble Hog Farm and a Grazing Management Plan improvement project on the Laughing Goat Fiber Farm. Design, Procurement of Contractors and updates to plans occurred in 2022 with implementation scheduled to begin in the spring of 2023.

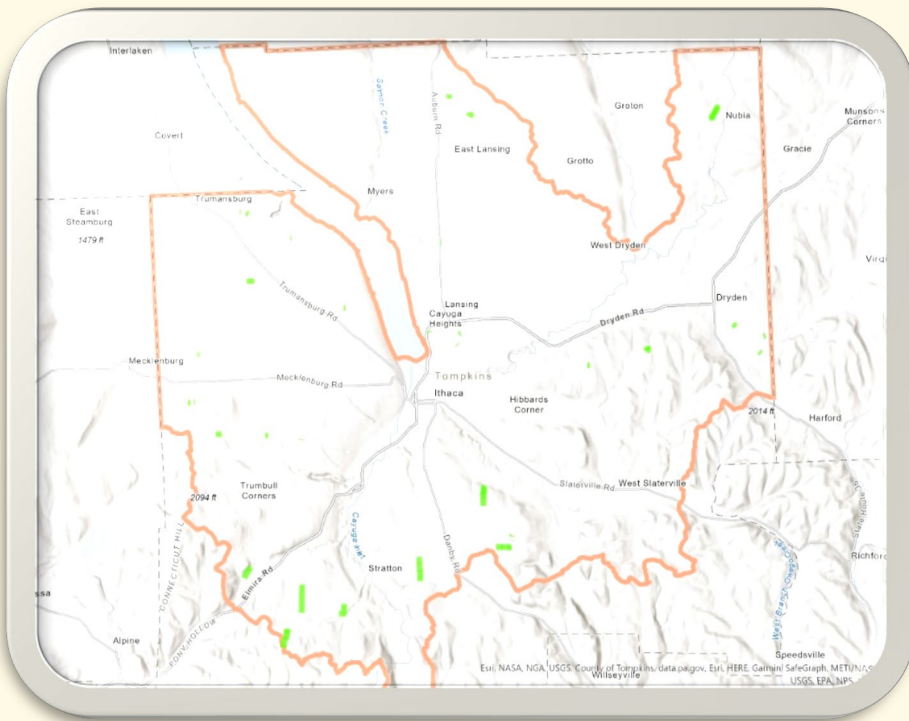


ROAD DITCH STABILIZATION

Hydroseeding

Without intervention via conservation practices, routine ditch maintenance results in many miles of bare soil in ditch lines every year. These exposed soils are major contributors of suspended sediment, nutrients, and other pollutants into our streams and lakes. Various methods of stabilization can occur in road side ditches to stabilize them, but through years of working in this area the District has found that hydroseeding can be one of the most cost effective, time critical and efficient methods of stabilizing exposed road ditches.

The District worked with 7 of the towns (and their respective villages and City of Ithaca) throughout the Cayuga Lake watershed, including the Town of Dryden, Town of Danby, Town of Groton, City of Ithaca, Town of Lansing, Town of Enfield, and Town of Newfield. Material was provided to the Town of Lansing and Town of Newfield at various points throughout the year as well. Working with these municipalities resulted in approximately 4.19 miles (22, 114.67 ft) of seeded ditches this year in the Cayuga Lake Watershed.



ROAD CULVERT IMPROVEMENT

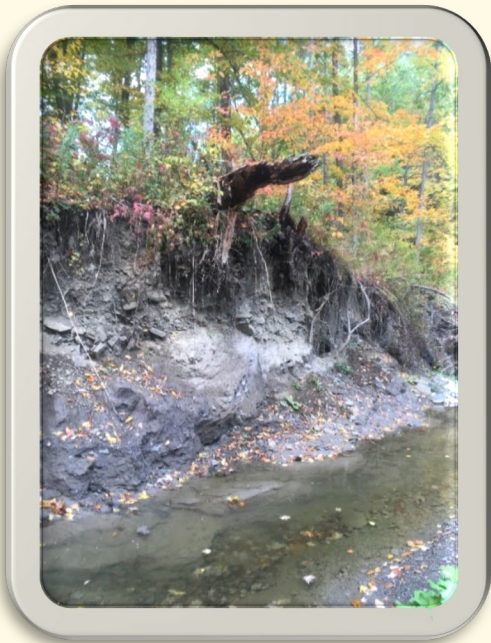
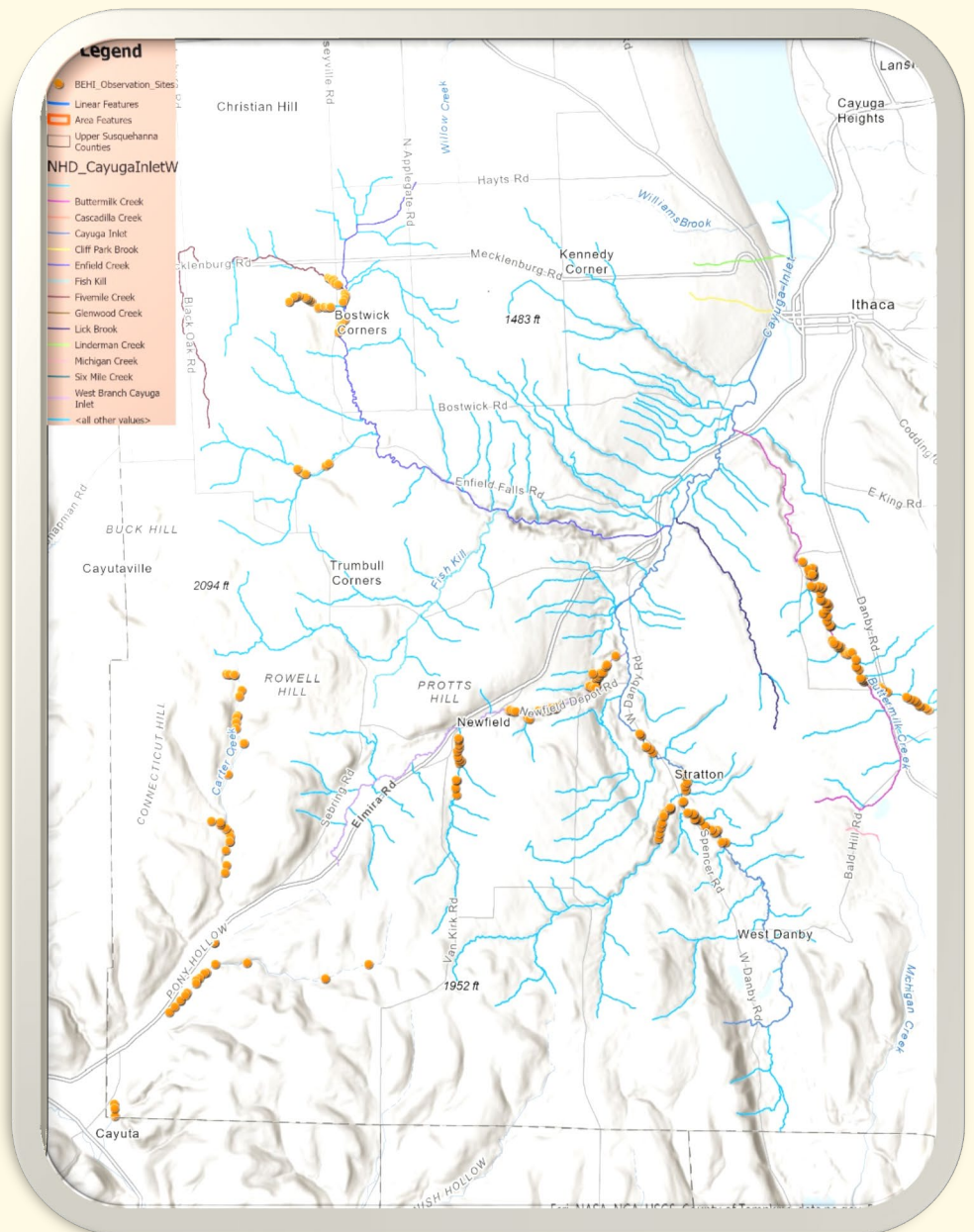
With funding through the Finger Lakes – Lake Ontario Watershed Protection Alliance, TCSWCD staff assisted the Town of Danby in replacing a failing road crossing culvert on Gunderman Road. With limited funds available to the Town, Gunderman Road had to be limited to a one lane roadway for over a year. Engineering analysis, survey and Design and implementation funding all helped the Town install this culvert within the Town's budget. Permits for this project were also procured through the District to make sure that the culvert the Town purchased would allow for adequate fish and other aquatic organism passage while also handling the storm flows through system.



CAYUGA INLET SEDIMENT ASSESSMENT

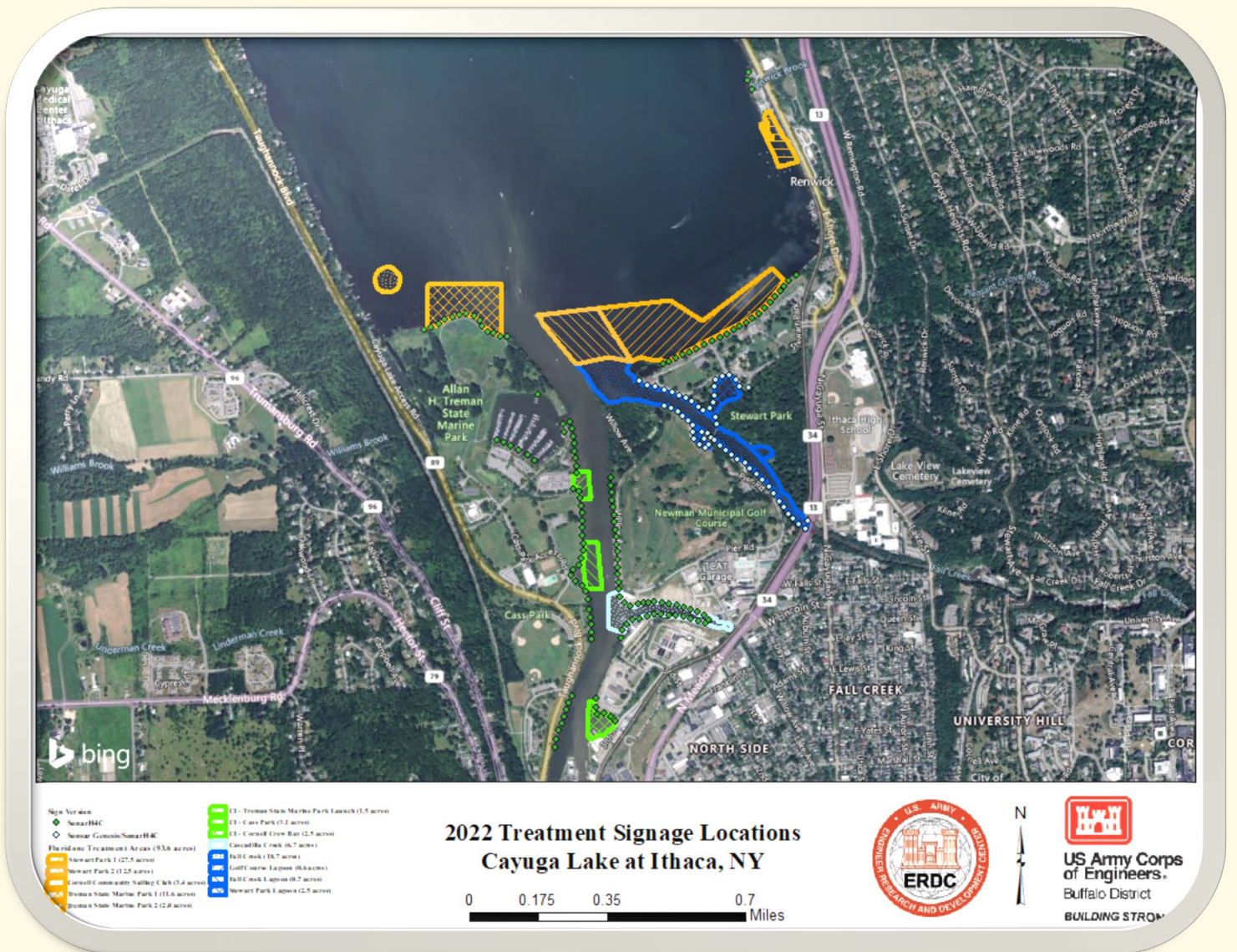
With funding through the NYSDEC Water Quality Improvement Program (WQIP), TCSWCD staff continued working on the Cayuga Inlet Sediment Assessment using the Watershed Assessment of River Stability and Sediment Supply (WARSSS). The initial objectives of the assessment are to identify sediment sources and channel stability problems and locate potential problem areas. To complete these objectives, we reviewed landscape and topographic data and combined that with local knowledge on problem areas in the watershed.

In October of 2020, we started walking stream channels throughout the watershed to document areas of erosion and channel stability problems and have continued this exercise through 2022. Identifying the highest areas of erosion in the Buttermilk Creek and Shelter valley area of the watershed, we plan to implement at least \$400,000 worth of project funding for slope/streambank/bed stabilization, and potential floodplain reconnection.



INVASIVE SPECIES – HYDRILLA ERADICATION PROJECT

Closing out the SWCD's last source of implementation funding (US Fish and Wildlife grant funds through FLOWPA) for this project, the District worked with project partners to assist with the herbicide application on 93.6 acres in Cayuga Lake, Fall Creek, and the Cayuga Inlet for eradication of Hydrilla. \$7,000 of staff funding from the Finger Lakes – Lake Ontario Watershed Protection Alliance was used to assist with the Local Task Force Meeting coordination and signage installation along the treatment areas for permit purposes. Since the finding of Hydrilla and the inception of the program in 2011, the District has been an integral partner of the Cayuga Lake local Hydrilla Task Force committed to eradicating Hydrilla from Cayuga Lake and stopping its spread to surrounding waterbodies.



Watershed Spotlight



Owasco Lake

Scipio Center

Southeast Owasco

Ashland

1361 ft

1861 ft

Poplar Ridge

Grout Mill

1843 ft

Willets

Moravia

Dresserville

King Ferry

Genoa

Owasco Inlet

Fall Creek

Groton

Nubia

East Lansing

Grotto

Gracie

Covert

Trumansburg

Myers

West Dryden

Dryden

Lansing Cayuga Heights

Dryden Rd

Klenburg

Mecklenburg Rd

Tompkins Ithaca

Hibbards Corner

2014 ft

Harford

2094 ft

Trumbull Corners

Slaterville Rd

West Slaterville

CONNECTICUT HILL

Cayuga Inlet

Danby Rd

Stratton

NUTRIENT STORAGE

Marlindale Farm Storage

Protecting Owasco Lake from harmful nutrient runoff, the Marlindale Farm in Groton implemented a 1.9-million-gallon nutrient storage structure that now allows the farm a comfortable 12-month storage capability. Nutrients can now be applied in the correct 4R fashion. All nutrient waste streams from the farm are collected and pumped into this steel structure and land applied using farm owned equipment. This project also involved the decommissioning of the old structure that had met it's useful lifespan and was leaking which posed another risk to the Owasco Lake Watershed. Funding for this project came from the NYS Agricultural Non-Point Source Pollution Abatement Program, the Natural Resource Conservation Service and the farm.



Carey Farm Storage

Also working hard to protect Owasco Lake from harmful nutrient runoff, the Carey Farm from Groton implemented a 2.6-million-gallon satellite storage structure that now allows the farm a comfortable 11-month storage capability and the ability to dragline manure directly from the satellite storage. Nutrients can now be applied in the correct 4R fashion. A complex network of pipes and pumps were engineered by our consulting engineer to flow into a reception tank that could previously only hold 1 month of storage. It then was pumped from the tank, under a County Highway and to the much larger remote storage facility for holding during inclement weather. The facility was designed for ease of a private custom manure application company to access (driveway) and connect their draglines to the tank and immediately incorporate the nutrients to the plant (thus adhering to the 4R concept). Funding for this project came from the NYS Agricultural Non-Point Source Pollution Abatement Program and the farm.



COVER CROPS

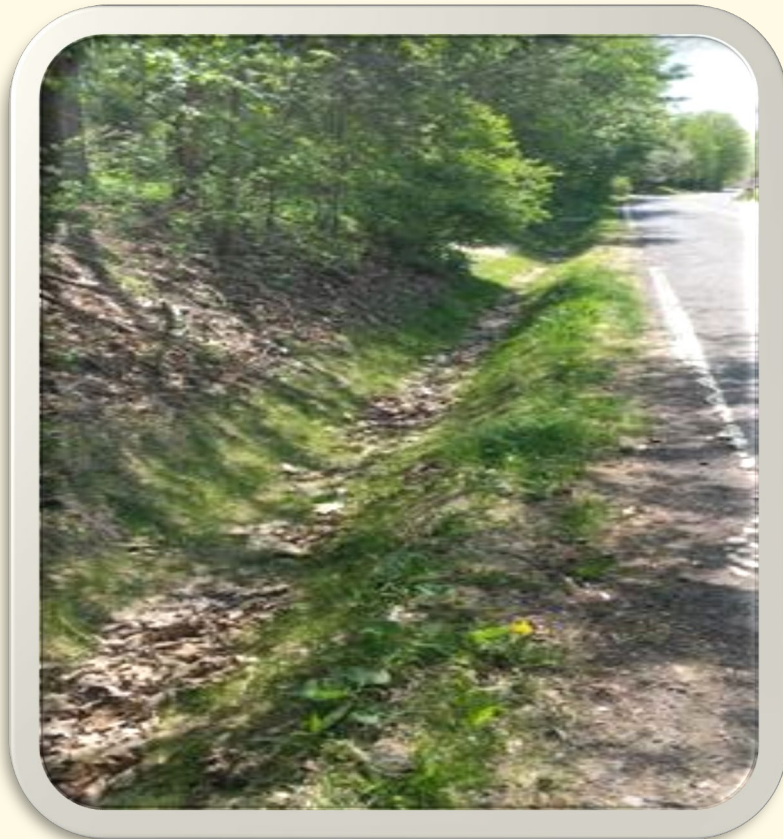
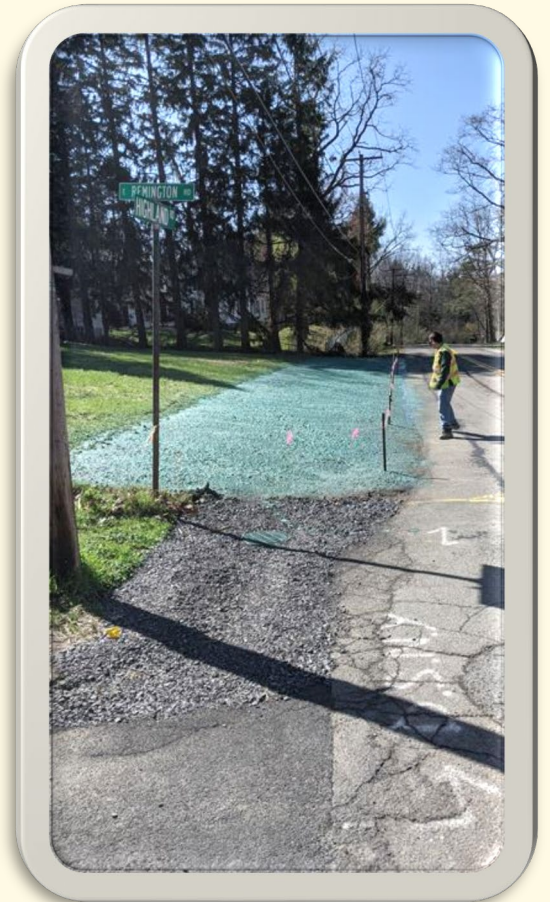
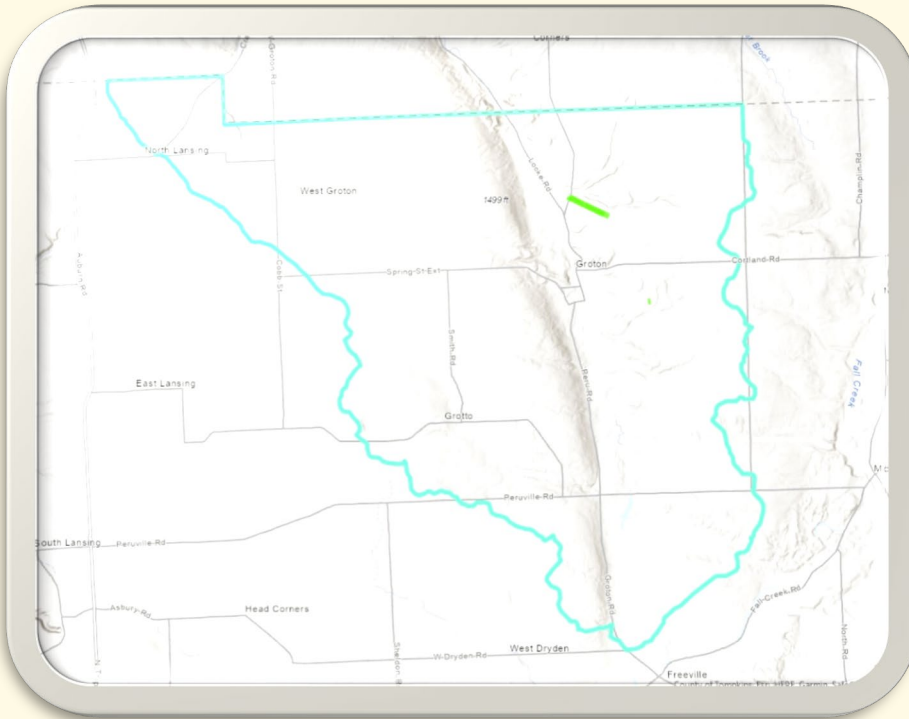
A mixture of funding was utilized to implement cover crops in 2022 in the Owasco Lake Watershed. The Fingerlakes – Lake Ontario Watershed Protection Alliance and NYS Agricultural Non-Point Source Pollution Abatement Program supported important cover crop work on the landscape in the Owasco Lake Watershed. Approximately 443 Acres of cover crop were implemented within the watershed.



ROAD DITCH STABILIZATION

Hydroseeding

The District worked with the Town of Groton in the Owasco Lake Watershed to stabilize 2,516 feet of road ditch.



Watershed Spotlight

Susquehanna River Watershed



ROAD DITCH STABILIZATION

Hydroseeding

The District worked with the Town of Newfield in the Susquehanna River Watershed to stabilize 3,517 feet of road ditch.



RIPARIAN BUFFER INSTALLATION

Katherine O'Neal Property

The District worked with the Upper Susquehanna Coalition (USC) in the Susquehanna River Watershed to plant a 47, 496 square foot riparian buffer project in Danby, New York. The objective of the project was to interplant a thin riparian buffer and expand it into an area that is hayed on the northwest side and mowed on the southwest side. Planting a mix of fruit, nut, medicinal, and Lepidoptera hosts create habitat and resources for people and wildlife. The buffer will also reduce stormwater runoff, cool tributary waters, prevent streambank erosion, store carbon, and increase water quality.

Prior to planting trees and shrubs, bush honeysuckle, common buckthorn, and multiflora rose needed to be removed, and mowing needed to take place. The USC and District staff provided labor to help cut and remove invasive shrubs and trees. USC then provided an ATV for transportation of invasive woody material away from the planting site.



EDUCATION AND OUTREACH

Although COVID impacted many of our education and outreach activities the District staff still involved themselves with many educational activities including the Southern Tier Regional Envirothon in 2022. Tompkins County did not send a team to the regional or state competitions this year. For those students that did participate from area school Districts, it was a welcome opportunity to engage in outdoor learning. If you are interested in the Envirothon program for your school or high school age group, please contact the District offices!

The District still maintains a Facebook page that is the main source of outreach for the District. Please like our page at <http://www.facebook.com/TompkinsSWCD>



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