



2020 ANNUAL REPORT



Manager's Message

Jonathan Negley
District Manager

What a year!

I think that is the most repeated phrase I hear when I ask someone, "how was your 2020?". It has been a challenging year for many in our community. I present my most heartfelt condolences if you have experienced loss this past year and express my optimism for a brighter tomorrow. The board of directors and staff at the Tompkins County Soil and Water Conservation District (SWCD) value the people in this community and the environment we all share. I trust that you will find some hope for a better tomorrow in the projects and accomplishments we have had at the SWCD as you read through the pages of this report.

As 2020 began, the SWCD had an ambitious workplan that included implementing best management practices for farms, municipalities and local landowners, community planning efforts with local agencies, education/outreach to youth regarding environmental issues and providing a variety of other services. As we dove into a global pandemic, I prepared for much of that work to be delayed or stopped altogether. That was not the case and I commend our enthusiastic, resilient and professional staff and directors for being able to adapt and get much of our original workplan completed through a challenging year.

You will see the range of services that the SWCD provides to the community as you read through the pages of this report. The SWCD helped to support agriculture by providing cost share assistance for nutrient storage structures, cover crops for soil health, and barnyard water quality management improvements. We also worked with our municipal partners to provide infrastructure improvements around our roads and ditches through streambank protection projects and roadside drainage ditch greening practices (i.e. – hydroseeding, stone check dams, and organic filtering media). Beyond physical implementation projects the SWCD worked with the community through many online forums to keep our community planning and education/outreach efforts ongoing.

We encourage everyone to continue to reach out with any questions or concerns that you may have regarding soil and water quality in our county. Our staff and directors are always willing and eager to help however we can.

Conservation Forward!

A handwritten signature in black ink, appearing to read "Jonathan Negley". The signature is fluid and cursive, written over a light background.

Conservation District Manager

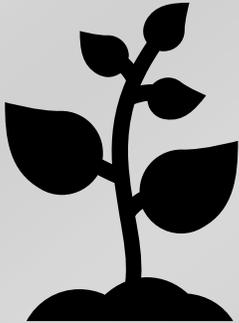
Board of Directors



Aaron Ristow
Board Chair



David McKenna
Treasurer



Alan Teeter
Vice Chair



Callan Space
Director



Deborah Dawson
Director

Staff



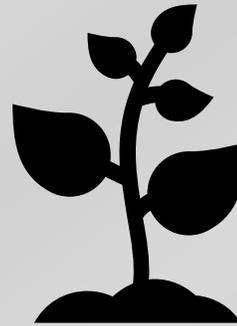
Paul Gier
Natural Resource Program Specialist



Angel Hinickle
Conservation Resource Specialist



Abigail Hogan
Conservation Aide

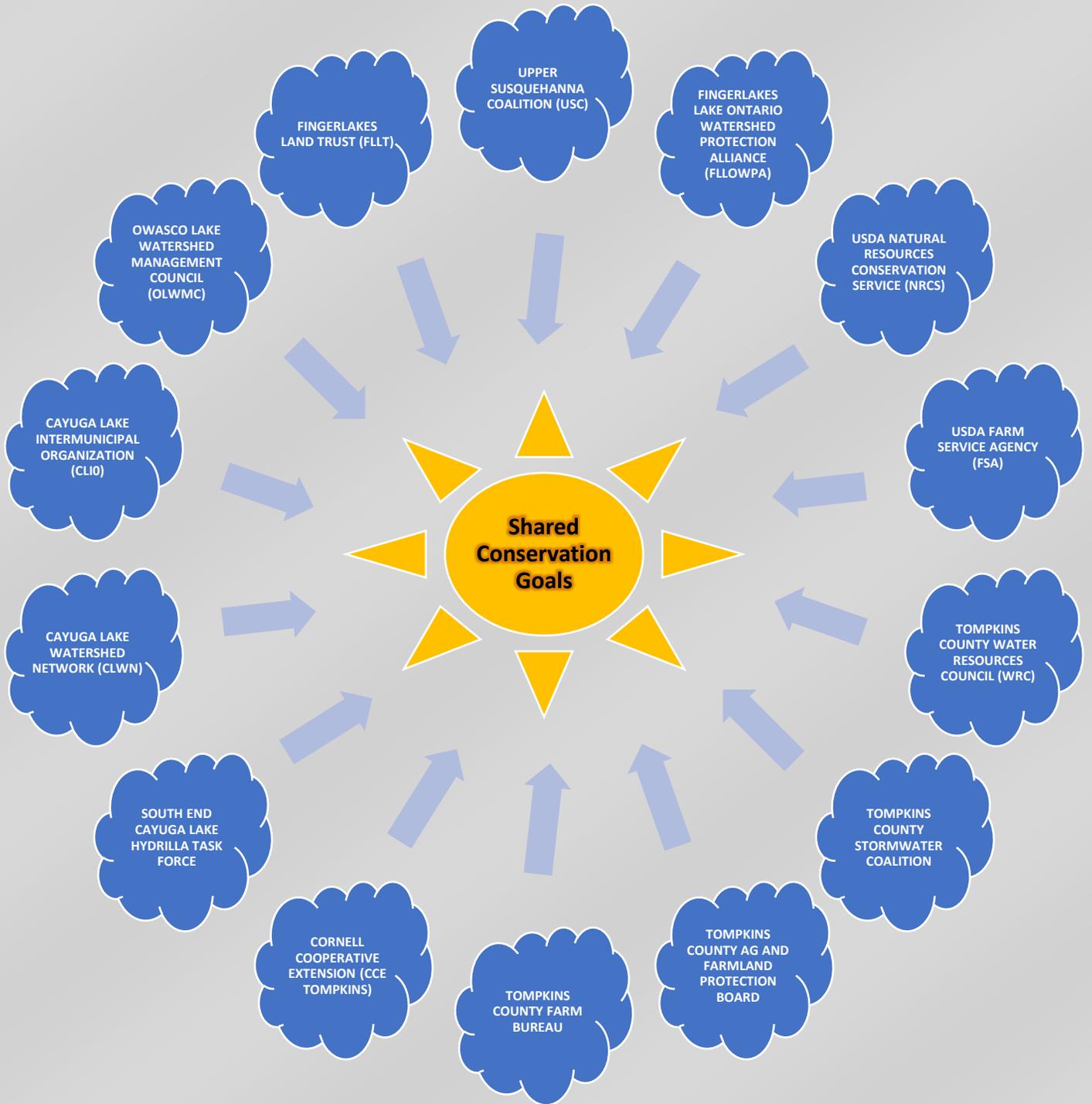


Tom Mallory
Part-time Water Resource Engineer



Kym Jackson
Senior Account Clerk

PARTNERSHIPS

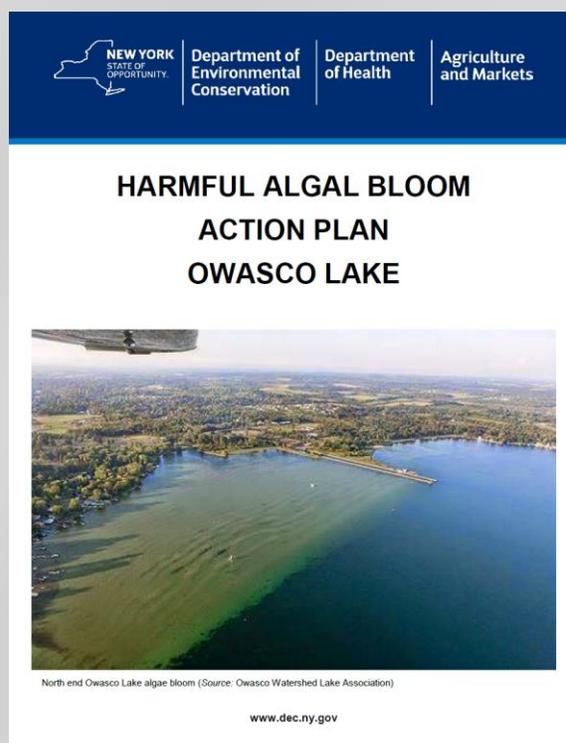
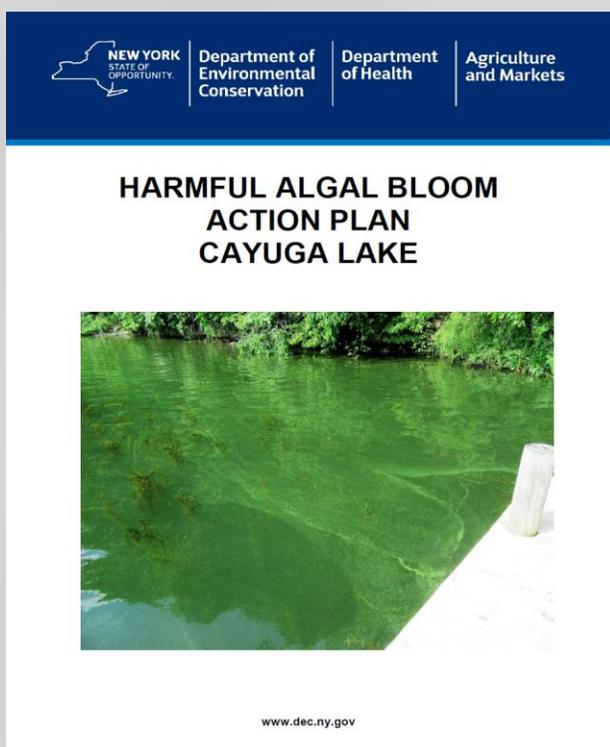


PLANNING EFFORTS

TOMPKINS COUNTY HABS ACTION PLAN

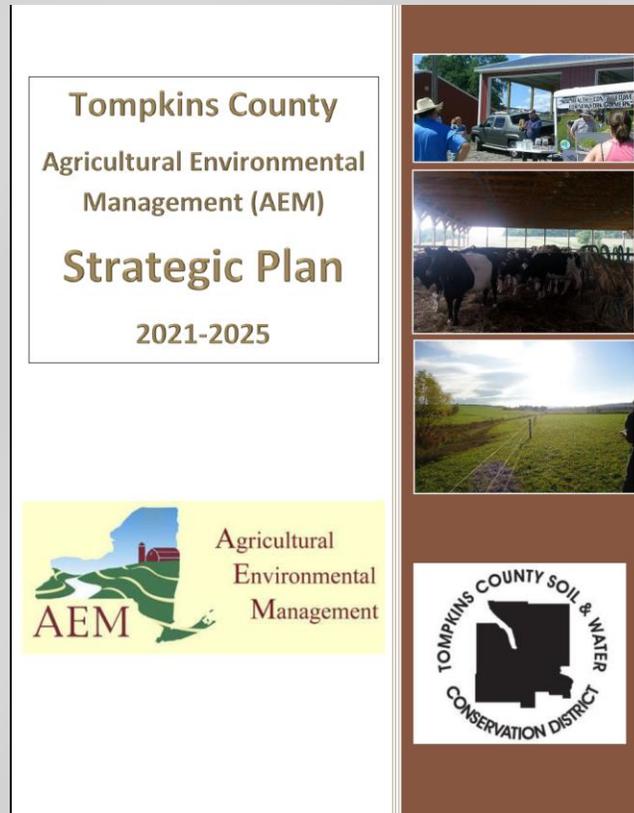
The NYSDEC has developed statewide Harmful Algal Bloom Action Plans that were published for the Cayuga Lake and Owasco Lake waterbodies in 2018. These plans can be found at https://www.dec.ny.gov/docs/water_pdf/cayugahabplan.pdf and https://www.dec.ny.gov/docs/water_pdf/owascohabplan.pdf respectively. The Tompkins County Water Resources Council determined after review of these plans in 2019 and 2020 that many of the action plan activities listed in the NYSDEC HABS Action plan needed further definition and scoping for specific Tompkins County related activities

As members of the Tompkins County Harmful Algal Bloom Action Plan subcommittee of the Water Resources Council, SWCD staff have interacted with the committee to provide specific action items related to HAB reduction that could be implemented in Tompkins County. These actions include Agricultural BMP's, roadside maintenance activities and riparian floodplain enhancement. Many of the activities listed in this annual report address the actions items listed in the Tompkins County HABS Action Plan. Although not officially adopted by the Tompkins County Legislature at the time of this writing, many of the action in the TC HAB Action Plan were implemented in 2020.



AEM STRATEGIC PLAN

The Tompkins County SWCD is authorized under NYS Conservation District Law to coordinate the planning activities of agricultural environmental stewardship under the framework of the NYS Agricultural Environmental Management (AEM) Program. Due to COVID restrictions, public outreach and involvement was limited in the 2021-2025 update of this plan although stakeholders were solicited for comment and input to the plan. Although reviewed every year by the SWCD Board of Directors, 2020 involved a more focused update relating to actionable goals through 2025. The full AEM Strategic plan can be found at: <https://www2.tompkinscountyny.gov/files2/swcd/AEM/2020%20AEM%20Strategic%20Plan%20-%20Final.pdf>



TOMPKINS COUNTY HAZARD MITIGATION PLAN

As part of the Tompkins County Resiliency and Recovery Planning process an update to the Hazard Mitigation Plan was coordinated by the Tompkins County Planning Department. The SWCD staff served on the steering committee for the Hazard Mitigation Plan update. The activities of this plan update included 10 potential hazards of concern, most notably flooding which the District has unique expertise, knowledge and resources to employ during these events. The updates to this plan will help Tompkins County be more resilient in the face of increasing natural hazards.

Implementation Activities



Department of Ag and Markets

CAFO WASTE STORAGE AND TRANSFER SYSTEM PROGRAM

FULLER FAMILY FARM NUTRIENT STORAGE GRANT

This project was designed by Aaron Weiss Engineering to store approximately 6.1 million gallons of manure through the winter months or periods of high runoff risk. Funding in the amount of



\$384,970.00 was obtained through the NYS Ag and Markets through their CAFO Waste Storage and Transfer program to assist the farm in implementing this project. Prior to implementation of this project the farm had limited storage potential, increasing the need to spread manure during times of high nutrient runoff potential. The addition of 6.1 million gallons of storage on the farm allows these nutrients to be stored in an environmentally responsible manner and be applied during times when crops and soil are in most in need of additional nutrients and runoff potential is low.

MILLBROOK FARM NUTRIENT STORAGE

This project was designed by Aaron Weiss Engineering to store approximately 6.3 million



gallons of manure through the winter months or periods of high runoff risk. Funding in the amount of \$384,970.00 was obtained through the NYS Ag and Markets through their CAFO Waste Storage and Transfer program to assist the farm in implementing this project. Funding from the Natural Resource Conservation Service's EQIP program was also used to cost share this program. This project enhances the farms potential to store manure during the winter months. A

composting facility was also constructed in tandem with this project which will be used to enhance soil carbon potential on the farm.

STATE AID – COVER CROP (PART C, EASTERN FINGERLAKES)

Funding was utilized to help cost share cover crops on 7 farms in Tompkins County in 2020. This equated to 2,236 acres of cover crop being implemented on farms in the Fingerlakes region and specifically the Cayuga and Owasco Lake watersheds. State Aid from the NYS Ag and Markets in the amount of \$20,000 planted 204 acres of Triticale, Oats and Winter Rye on the Carey Farm in the Town of Groton and 1,112 acres of Triticale, Oats and winter Rye on the Walnut Ridge Farm in the Town of Lansing. \$22,200 in funds were spent using the Eastern Fingerlakes Cover Crop grant administered by Cortland County Soil and Water Conservation District to plant 370 acres of cover crop including a species diversity of Triticale, Winter Rye, Red Clover on the Oeschner, Buck and Stick & Stone farms.



USC WETLAND CREATION



In cooperation with the Upper Susquehanna Coalition (USC) Wetlands Team, a 0.25 acre wetland was created on the Neal/Davis Farm in the Town of Danby. The wetland was designed and constructed by the USC Wetlands Team. The wetland has a bird nesting island, that can be seen in the picture



to the right. The Neal/Davis Farm previously worked with the USC Wetland Team to install vernal pools on their property about 10 years ago. The landowners are very happy with both projects.



FOLLOWPA
FINGER LAKES - LAKE ONTARIO WATERSHED PROTECTION ALLIANCE

FOLLOWPA – NON-AGRICULTURAL BMP IMPLEMENTATION

Salmon Creek Phase 2 project

The Salmon Creek project upstream of Lockerby Hill Road in the Town of Lansing was requested to be completed by the Town's Highway Department and the landowners of the properties to



slow and eliminate erosion that would affect a silage leachate filter system and Salmon Creek Road.

Historically, this section of Salmon Creek has been unstable with severe erosion and sediment deposition. Work

was completed in the 1970's to stabilize this area, but ultimately was washed away following heavy storm events. The Silage Leachate Filter System was installed for the farm in 2007. Since that time, Salmon Creek had eroded closer to that system threatening water quality on what is referred to as Phase 1 of this project.

This project began with some preliminary survey work completed by Tompkins SWCD staff under the State Fiscal Year 15-16 FOLLOWPA contract in 2018. Under the 16-17 FOLLOWPA contract, we continued the survey and design work to help complete phase 1 of this project. In 2020, another FOLLOWPA contract (17-18) was used in tandem with the 18-19 contract to purchase stone material for completion of phase 2 of the design and the entire project. Additional funding was obtained from the County Planning Department to pay for a riparian buffer planting and permanent easement along a section of the stream corridor.



Red Mill Bridge Site project (Lansing)



Excess stone that was not needed on Phase 2 of the Salmon Creek project was utilized downstream at the Red Mill Bridge Site. This site was experiencing erosion of the bank upstream of a 2018 reconstructed County bridge. The Town Highway had concerns of tree debris clogging the bridge and undermining the roadway. Trees that were impacting stream flow were removed and transported offsite. Stone was then placed along the bank to protect the road and bridge infrastructure.

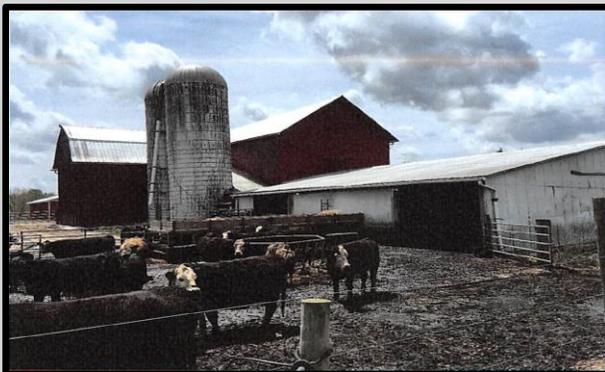
FLOWPA – AGRICULTURAL BMP IMPLEMENTATION

Barnyard Runoff Improvement (Town of Groton)

The District utilized FLOWPA funds to implement an agricultural BMP in 2020 on the Sam Rose Farm that was designed to keep rain water off a barnyard/feedlot area with a roof cover. The goal of this project was to contain manure laden water that was running off directly into a roadside ditch and eventually reaching the Owasco Inlet. After completion, the



farm can keep rainwater from mixing with manure and store it in a temporary storage area or apply at acceptable rates on his pasture/crop fields.



FLOWPA - Compost BMP Implementation

Utilizing FLOWPA funds for staff time and District equipment, SWCD staff helped the Owasco Lake Watershed Inspection Committee fill construction filter sock with composted woodchips for use on emergency construction site inspections. The Inspection Committee's mobile trailer was filled with compost socks to be used during construction inspection where stormwater runoff violations were found and needed immediate remediation. The District hopes to expand this program in the coming years with partners.



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 apply herbicide on 13.5 acres in Cayuga Lake for eradication of Hydrilla. The District cooperated with the US Army Corps' application of 50.4 acres of water in front of Stewart Park in Cayuga Lake to assist in the combat against this aggressive invasive plant. Funding was also used to help fund the Cayuga Lake Watershed Network's outreach efforts related to Hydrilla around the entire Cayuga Lake watershed. Since the find 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.





Department of Environmental Conservation's Water Quality Improvement Program

HYDROSEEDING

The Tompkins County Soil & Water Conservation District worked with 7 of the towns, villages and cities throughout the county; 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 18.5 miles (98,314 feet) of



seeded ditches this year, with some locations having to be seeded multiple times due to drought conditions throughout the summer months. Compost socks were placed in ditch lines on Pleasant Valley Rd in the Town of Groton, and Hile School Rd in the Town of Dryden. The compost socks were utilized as check dams; filtering sediment and slowing down water in the ditch before discharging into their respective bodies of water downstream. These BMP's are especially effective in the later part of the season when a grass cover may not establish effectively.



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 Dave Rosgens's 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. Prior to walking streams, letters were sent out to landowners notifying them of our project and that we identified a potential problem area on a stream section that runs through their property. If a landowner did not want us on their property, we left contact information so they could notify us. We continued stream channel walking until hunting season started and we will start up again in the Spring of 2021. There is a lot more work to be completed on this project, both in the office and out in the streams!



EDUCATION AND OUTREACH

Although COVID impacted many of our education and outreach activities the District was still involved with many educational activities including the Envirothon. Tompkins County did not send a team to the regional or state “virtual” competitions this year, but staff at the District sit on the Statewide Envirothon Committee dedicated to seeing this program continue through a difficult year for local high school students. For those students that did participate, it was welcome opportunity to disconnect from the reality of virtual classroom learning and engage in outdoor learning, even if it was from their computer screen.

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>



Tompkins County Soil and Water

Conservation District

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