



Quarterly

# NEWSLETTER



## DATES TO REMEMBER



### October:

- 18 - Broome County Annual Riverbank Cleanup p 10
- 23 - USC Bi-Monthly Meeting
- 28 - USC Ag Team Call
- 30 - Fall into Fishing Program p 9



### November:

- 12 - Floodplain Management Training p 11
- 13 - NYACD/CDEA Division 4 Meeting
- 18 - USC Ag Committee Meeting



### December:

- 4 - RFB Task Force Meeting

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## Stream Team Site Work Email Notice List

The Stream Team is looking to compile an email list of individuals interested in being notified about stream work in the watershed.



Stream team members will communicate with the email list when field visits or construction activities are taking place to increase the stream restoration education opportunities in the watershed. To be added to the mailing list email: [streamlist@u-s-c.org](mailto:streamlist@u-s-c.org)

# Tioga SWCD Flood Control Project Highlights

By Connor Hubbard, Danielle Singer, Brian Reaser *Tioga County SWCD*

Flood control and mitigation has become a big issue in recent years due to the increasing intensity of rain events in the area. A lot of rain events lately see high amounts of rain in shorter periods of time, which leads to greater amounts of runoff in our waterways. This leads to flooding and high scour events occurring more frequently, which places an increased financial burden on landowners and municipalities. Dams are one of the most commonly seen methods of flood control and retention. The issue with dams, however, is that they become increasingly large and expensive the farther down the watershed you get (think of the size of the Whitney Point Dam and where in the watershed it's located). Most landowners and municipalities can't afford these kinds of structures nor have the space at those sizes. The more affordable effort is higher up in the watersheds. While one structure in areas like these will have a very small impact on the greater watershed as a whole, immediate impacts can be seen at neighboring sites close to the dam and these projects can be implemented in manageable and affordable chunks. This potentially allows for more projects to occur in the watersheds. This is the philosophy that the Tioga SWCD team operates off of when planning out and choosing projects like these.

Near the top of the Pipe Creek Watershed in the town of Candor, the Cornell Cooperative Extension (CCE) of Tioga County purchased a parcel that was previously a horse farm and before that, a dairy farm. Due to the close working relationship between CCE and Soil and Water Districts across the state, the Tioga SWCD team saw a great opportunity for a large conservation project that would be protected long-term and readily available for tours on the parcel. During the planning process, the Tioga engineering team sized two flood control structures to retain runoff from almost 100-acres of watershed in the 100-year storm (6" of rain in 24 hour) and reduce the peak flows from the basin by almost 70%. One 2.9 million gallon basin with a 7-ft high dam and one 2.2 million gallon basin with a 15-ft high dam were constructed. The Tioga Engineering team designed these flood control basins to retain the 100-year storm beneath the emergency spillway elevation, with enough freeboard for the spillway to take the 500-year storm (8" in 24 hours) without overtopping the dam. This ensures as much structural integrity of the dam as possible while remaining economically feasible.

The Tioga team took this project from start to finish: planning, cost estimating, grant application/administration, geological investigations, design/stormwater planning, procurement of bids, construction oversight, and as-builts. The costs for construction were covered by a grant awarded by the Susquehanna River Basin Commission (SRBC) and matched with local District funds and some Upper Susquehanna Coalition Water Quality Application Funds. It was a large project that couldn't have been done without the partnership from the Tioga SWCD office, NRCS (who assisted with the geological investigations and testing), CCE Tioga and the Upper Susquehanna Coalition. We also extend our thanks to Forse Excavation (the winning bidder of the construction contract) for their collaboration on the project and excellent craftsmanship of the basins.

As part of the effort to get more flood storage higher in the watersheds of the county, the District hopes to use this project as a case study and a model for how this can be done effectively and with cost efficiency.



Existing site conditions before construction (7-ft basin planned below the existing pond, and the 15-ft pond planned above)



7-ft Basin during Construction of the Primary Outlet



15-ft Basin during Construction of the Berm





# 2025 Upper Susquehanna Watershed Forum Wrapup

Binghamton University, NY - On Thursday, October 2, more than 140 conservation professionals, researchers, students and community leaders gathered for the 2025 Upper Susquehanna Watershed Forum, a day of knowledge-sharing and collaboration focused on building resilience across New York's watersheds. The day-long forum showcased a wide range of sessions exploring the intersection of science, policy, and practice in watershed management.

The event opened with a keynote address by Dr. Benjamin Hayes, Director of Bucknell University's Watershed Sciences & Engineering Program, who highlighted how centuries of land-use change continue to shape today's watershed dynamics. Dr. Hayes emphasized that adaptive restoration offers the most effective path to restoring ecosystem health and resilience.

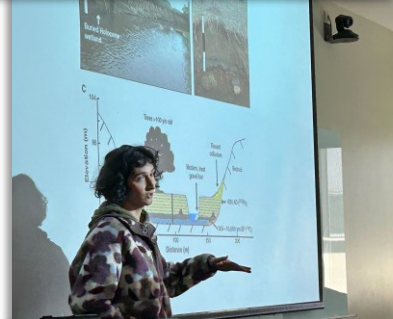
With a wide range of presentation topics divided into two groups of concurrent sessions, and 17 table displays and poster presenters available for discussion, forum attendees had the opportunity to learn, interact and network on a variety of topics.

Through science, innovation and shared commitment, this year's forum underscored how collective action continues to drive progress toward a more resilient and connected Upper Susquehanna watershed.

We are appreciative of our 11 - 2025 Upper Susquehanna Watershed Forum sponsors, of the 22 forum speakers, 29 display and poster presenters, 6 moderators and 16 members of the forum planning team without which this forum could not have happened.

To access the 2025 (and past) watershed forum presentations visit:

<https://www.u-s-c.org/watershedforum>



Sponsored by:





# Federal Grant Allows Local Advancements in Farming Technology

Joleanna Holstein (Johnson Family Farm),  
Unadilla, New York

By Olivia DeMott, Delaware County SWCD

Historical Delaware County is well-known for farming and crop abundance, and modern-day technology brings mechanical advancements to enhance local farmer's abilities to grow and harvest their crops. These advancements include implementation of designed cow manure storage, as well as the implementation of prescribed manure injection on cropland during the growing season. Both, of which allow for more effective manure nutrient recycling and reduced risk of nutrient loss to the environment.

On Friday, August 29, 2025, the local Delaware County community, and further regions witnessed a pivotal event in the county's agriculture advancement at Joleanna Holstein farm (Derek, Erin, Luke and Janette Johnson, and family), Unadilla, New York. The farm hosted the first Delaware County Manure Injection Field Day, and the 2025 growing season had seen Delaware

County's first-ever disc coultter manure injection using precision ag technology on agricultural cropland. This achievement was made possible through a \$3 million, 3-year federal Conservation Innovation Grant (CIG) project awarded by the USDA Natural Resource Conservation Services to the Delaware County Soil and Water Conservation District (DCSWCD). The project is coordinated and implemented by DCSWCD with help of partnering agencies that was made possible through Cornell Cooperative Extension of Delaware County (CCEDC), Watershed Agriculture Council (WAC), PRO Dairy, Cornell University Nutrient Management Spear Program, USDA Natural resource Conservation Service (NRCS) and Farm Service Agency (FSA).

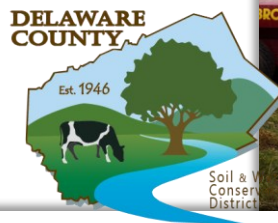
The event consisted of informational presentations in the morning, lunch hosted by Brad Taggart (with the addition of locally loved, home-grown Johnson's sweet corn), and live manure injection demonstrations, as well as manure spill response demonstration to close the day. Introductory statements and gratitude were opened by Paul Cerosaletti (CCEDC and CIG Project Coordinator), with further statements from Graydon Dutcher (DCSWCD in-term Executive Director), Gideon Frisbee (NYS Department of Ag and Markets Environmental Analyst), and Tony Capraro (USDA NRCS NY Assistant State Conservationist). Presentations on the value of manure injection were made by Kirsten Workman (PRO Dairy nutrient management specialist) and Dr. Quirine Ketterings (Director, Cornell University Nutrient Management Spear Program), as well as a panel of local Delaware County farmers and agriculture businessmen. The panel included farmers, Derek Johnson, and Mark Kenyon of Marick Farms, Jim and Matt Gray of NelJean Farms (who provided their personal manure injection unit for demonstration), Frank Albano of Albano's Precision Application (APA), and Kirsten Workman of PRO Dairy. The afternoon session included the live manure injection demonstration into both sod and corn stubble, featuring both APA, and Gray's manure injectors. The last demonstration of the day was the manure spill response display. Thank you to Pro Dairy, the Onondaga County Soil and Water Conservation District Manure Spill Response team, and the Watershed Agriculture Council for coordination of a safe, effective, and informative demonstration of techniques that farmers and agency professionals can use in real-life scenarios on the farm. Approximately 102 people attended the Manure Injection Field Day, including agency representatives, farmers, local community members, and even U.S. 19<sup>th</sup> district congressman, Josh Riley. Riley had even proudly taken his picture in one of the manure injector units with APA operator, John Albano.





Disc coulters manure injection technology includes a tool bar of multiple disc coulters attached to a liquid manure tanker. The tool bar includes multiple hose attachments leading to a rolling vertical, 20-inch disc coulters that create an incision 3-6 inches below the ground surface into which manure is injected from tubes that hover a couple inches above the incision. With a tractor pulling at a relatively slow speed (approximately of 3-6 miles per hour), the typical rate of application is anywhere from 4000 to 14,000 gallons per acre or more, depending on the crop. Precision ag-technology helps to maintain the desired rate across the field as well as create digital as-applied manure maps and records. Injection of manure keeps the manure below the soil surface with very minimal disruption, resulting in manure nutrients being more available to crops, increasing crop yields, and reducing nutrient runoff risks. Additionally, injection greatly reduces odor and is appreciated by neighbors, which has alone, raised popularity of this technique. For the manure spill demonstration, a ditch and culvert mechanism was pre-built for a tanker to "spill" a small volume of manure into. Staff then demonstrated various spill containment techniques. Cleanup of the spill was demonstrated using special pumps and a large vacuum truck; water from a firetruck (Unadilla Fire Department) was used to demonstrate dilution techniques.

The day was a success, leaving attendees in awe of the available technology that modern day agriculture brings, now making its way to Delaware County. The \$3 million federal Conservation Innovation Grant project will allow for local Delaware County farmers to have this technology at their fingertips for at least 3 years, through Albano's Precision Application, located in Stamford, New York. In the future concern of local farming, as well as environmental conservation efforts, additional grant funding will be sought in hopes of continuing the project for years to come after 2027.





# Photos from Across the Watershed



Madison County's Thomas Conklin found a spotted salamander while planting a riparian buffer this spring



CHENANGO COUNTY  
SOIL & WATER  
CONSERVATION DISTRICT

Landowners in Chenango County are taking care of their new street trees





## Silvi-Corner: *Lindera benzoin*

By: Ava Glasser, *Upper Susquehanna Coalition*

*Lindera benzoin*, common name spicebush, is a medium-sized deciduous shrub native to eastern North America. It is highly adaptable to a variety of habitats- spicebush can be found in swamps, bottomlands, dry forests and ravines as well as along riparian corridors. It thrives in moist, well-drained soils in part shade, and is commonly found as a forest understory species. Since it is often found in rich woods, early land surveyors used to use spicebush as an indicator of good agricultural land. Spicebush can be most easily identified by its distinctive leaves. They tend to be large, oblong and obovate, alternately arranged with an entire margin, and have a strong scent when lightly crushed, which gives the spicebush its name. The leaves contain several aromatic compounds, including terpenes, lactones and camphor, which provide it with some defense against deer herbivory. In fall, leaves turn an attractive bright yellow color. The leaves are not the only part of this plant containing fragrant compounds- all parts of the spicebush, including flowers, fruits, and bark, can be used for medicinal or culinary purposes, and are extremely flavorful. Spicebush is dioecious, meaning male and female flowers occur on separate plants, so both male and female plants are needed in order to get fruit.

The fragrant yellow flowers of spicebush bloom in early spring, around the same time as forsythia, which makes it a wonderful native alternative to this common ornamental shrub. If pollinated, the flowers on female plants will turn into bright red fruits with a peppery taste and scent. These fruits can be eaten fresh, or dried and ground into a powder with a unique peppery, citrusy flavor. The twigs and bark also carry the same flavor, and can be brewed into tea, or added to soups and stews to imbue some of their unique flavor into them. Infusions of the bark and twigs were also historically used by Objibwa and Cherokee peoples as treatment for fevers, colds, and joint pains.

Humans are not the only animals who can eat and enjoy spicebush. Spicebush attracts many pollinators with its early spring flowers, and hosts several species of butterflies. It is the main host plant for the larvae of the spicebush swallowtail (*Papilio troilus*). The caterpillars spin silk to fold over the large leaves of the spicebush and use them for cover during the day, and come out to forage at night. The caterpillars have large eye spots which make them slightly resemble snakes, and deters some predators. In addition to the spicebush swallowtail, spicebush hosts a variety of other swallowtail butterfly caterpillars, as well as the massive promethea silkmoth (*Callosamia promethean*). The berries are commonly eaten by birds and small mammals, and are a particular favorite food of wood thrushes.



Spicebush fruits and leaves. Photo credit: NC State Extension



Yellow fall foliage. Photo credit: NC



5<sup>th</sup> instar spicebush swallowtail caterpillar folding up a leaf for cover. Photo credit: NC State Extension

October 2025

The Broome County Environmental Management Council will hold their annual Susquehanna Riverbank Cleanup on October 18, 2025 (Rain date October 19)  
<https://broomecountyny.gov/emc/riverbankcleanup>

**SAVE THE DATE**

# **BROOME COUNTY ANNUAL RIVERBANK CLEANUP**

SATURDAY, OCTOBER 18, 2025

Registration opens 9/2





# Fall into FISHING

Community Workshop hosted by Cornell  
Cooperative Extension & NY State Parks  
F.O.R.C.E.S. Program

**THURSDAY, OCTOBER 30TH**



Waverly Glen Park and Two Rivers  
State Park Recreation Area



**9am- 12pm**

Hands on fishing, hikes, and  
aquatic education stations

**12pm - 1pm**

Tabling, networking, and  
activities. Bring your lunch!

**1pm - 3pm**

Bioblitz Challenge!



New York State  
Parks, Recreation and  
Historic Preservation

**FORCES**  
Friends of Recreation, Conservation  
and Environmental Stewardship



# New Staff in the Watershed



**Annika Rowland**

Annika Rowland is the New York Agriculture Projects Coordinator at the Alliance for the Chesapeake Bay. She works with farmers, conservation districts, federal agencies, dairy co-ops, and technical advisors to advance the implementation of climate-smart BMPs in dairy farms across the northern part of the Chesapeake Bay Watershed. Before starting at the Alliance, Annika worked as a Technical Assistance Provider with Pasa Sustainable Agriculture in the same region, where she developed a particular interest in agroforestry. Annika is excited to continue to listen to farmer needs and advance the adoption of manure management, soil health, and agroforestry related practices with the Alliance. Please reach out to her at [arowland@allianceforthebay.org](mailto:arowland@allianceforthebay.org) with any questions or collaboration interests.



**Buster Waltz**

Hello everyone! My name is Buster Waltz and I am a new member of the Upper Susquehanna Coalition team. From growing up on the banks of the Otselic River to currently residing near Cayuta Lake, I've developed a deep appreciation for the special lands and waters of Upstate NY. I am excited to contribute back to this place we get to call home. I became interested in habitat restoration and riparian buffers through my time in the Sustainable Farming program at Tompkins Cortland Community College. Though this program introduced me to the joys of locally-sourced food and the importance of sustainable alternatives to agriculture practices, I am eager to dig deeper into ways we can protect our watersheds. In my time with the USC, I will be primarily assisting the Trees for Tributaries program; delivering and planting stock, coordinating volunteering events, and helping out to make sure operations run smoothly. I will also be taking care of maintenance and replanting at a few sites near the office. In my free time, I enjoy quiet hikes along the Finger Lakes Trail, bird watching, the occasional foraging session, and taking long drives to nowhere. If I am not out and about, you can find me under a blanket with a book and my cat Little Caesar. My favorite native tree is the eastern white pine (*Pinus strobus*) and my favorite native wildflower is trout lily (*Erythronium americanum*).



**Hayleigh Gates**

I received my Bachelor's in Ecological Restoration from Paul Smith's College last December, and began working with the District full time in January as the Agricultural District Technician. Prior to graduation I interned for Oneida County SWCD for three summers and throughout school breaks, specifically shadowing Tim Wimmer. I have now passed my Certified Crop Advisor board exams, and am beginning to write my CNMP's towards becoming an AEM Certified Planner. I look forward to continuing to learn and fulfill my role with the Oneida County District.



**Olivia DeMott**

My name is Olivia DeMott, and I am a new-hire at the Delaware County Soil and Water Conservation District as a Program Technician, with district Education and Outreach duties!

I graduated from Sidney, New York high school in 2021, finding local internship between college sessions, here, at the Soil and Water District. I was a Buffer Steward intern for the district for two consecutive summers—2024 and 2025. I graduated from SUNY Cobleskill this past spring, 2025 receiving my bachelor's degree in Wildlife Management, and a minor in English--writing concentration.

My career-related hobbies include deer hunting, hiking, camping, gardening, birding, raising chickens, and writing/photography. I also participate in various choir groups, self-teach musical instruments, recreationally read and write, and craft.

Anywhere that is a quiet, natural, and colorful setting is my solitude!



# FLOODPLAIN MANAGEMENT TRAINING



Department of  
Environmental  
Conservation



## Implementing the NFIP at a Local Level

NYSDEC in partnership with Tompkins Co. Soil & Water will be providing a half day workshop on floodplain management. The intended audience is local code, zoning, and planning officials. The course will include:

- Introduction to the National Flood Insurance Program (1 hr.)
- Duties of the Local Floodplain Administrator (1 hr.)
- Reading & Interpreting Maps Workshop (2 hrs.)

**November 12, 2025 9:00 – 1:30**

**Tompkins Co. Highway, 170 Bostwick Rd, Ithaca, NY 14850**

**Registration by October 29, 2025 is required!**  
**Light refreshments in the morning and lunch**  
**will be provided. Register using the link**  
**below or scan the QR Code.**

**<https://forms.office.com/g/9WXa2yvNqs>**

Registration Link

