

It Takes a Network to Protect a Watershed

# Network News

CAYUGA LAKE WATERSHED 2025 i1-2



THOMAS BJORKMAN

*The 2025 grape harvest unfolds across the Finger Lakes. Captured here at Sheldrake Point Winery on Cayuga Lake's west shore. See Tim Martinson's article inside about vineyard sustainability practices.*

Testifying for clean water | Finger Lakes wineries and vineyards embrace sustainability | Hydrilla in Cayuga Lake: tracking, treatment, and the path ahead | Rain barrel workshop is Lake Friendly Living in action | 2025 HABS-focused Canoga Community Conference | Fall 2024 Cayuga Lake Watershed Community Conference | PLEASE GIVE! CLWN Annual Appeal 2025 | Upcoming Events

Harmful Algal Bloom  
along the shoreline  
near East Varick

THOMAS BJORKMAN

# Testifying for Clean Water: Cayuga Lake Partners Urge NYS to Strengthen HABs Response

Liz Kreitinger CLWN Steward

*In May 2025, Cayuga Lake Watershed Network and partners banded together to quickly respond to an opportunity to write testimony for the NYS Senate Standing Committee on Environmental Conservation’s public hearing to “evaluate the efficacy of the state’s monitoring and management of HABs and to examine potential legislative solutions.” Cayuga Lake Watershed Network (CLWN), Cayuga Lake Watershed Intermunicipal Organization (CWIO), and Cayuga Lake Environmental Action Now! (CLEAN) submitted a joint testimony and also undersigned a separate testimony letter submitted by the Community Science Institute (CSI).*

The following are excerpts from the joint letter submitted by CLWN. Both letters are viewable in full on our website under the “About” heading and “Where We Stand.”

The issue of harmful algal blooms (HABs) in the Finger Lakes and beyond is having, and will continue to have, a widespread impact in our communities. HABs increasingly threaten public water supplies, result in closed public bathing beaches, and harm tourism and other aspects of our economy including lowering property values. The DEC estimates that the Finger Lakes provide drinking water to over 2 million New Yorkers, yet, in September 2016 the city of Auburn detected cyanotoxins passing through their treatment systems—the first time this had happened in any NY public water system. They continue to find cyanotoxins in the water as recently as October 2024. This is an unacceptable risk to public health. Beyond drinking water, our Finger Lakes underpin a \$3.2 billion tourism industry and support 60,000 jobs. Unchecked HABs threaten these vital economic drivers.

We believe New York State can better support on-the-ground partners in protecting our lakes and promote smarter watershed management to combat the complex and growing threat of HABs in two significant ways:

First, we urge the Legislature to pass and fully fund Senate Bill 1833 and Assembly bill 5150—the Harmful Algal Bloom Monitoring and Prevention Act. This bipartisan bill establishes

a science-based, common-sense framework for a coordinated statewide response to HABs. A core provision of the bill is the creation of a centralized, web-accessible clearinghouse for HAB-related data, contributing factor research, effective regulatory strategies, emerging mitigation technologies, and best evidence-based practices. This resource would enable local and state entities to better align efforts and adopt collaborative strategies more effectively.

Second, we call on New York State agencies to uphold Public Health Law Section 1100 and Title 10 of the New York Codes, Rules, and Regulations, which authorize water purveyors to develop and revise Watershed Rules and Regulations (WRRs) to protect public water supplies from both point and nonpoint source pollution.

Many of the WRRs currently in place were adopted before HABs emerged as a significant threat, and they must be updated to reflect today’s challenges. WRRs provide enhanced protection to drinking water sources when existing programs are insufficient. The 2016 cyanotoxin event spurred many actions locally and at the State level, including: treatment plant upgrades, creation of the Finger Lakes Hub, development of HABs Action Plans for twelve (12) NY waterbodies, and the investment of millions of dollars in watershed projects to reduce nutrient loading. Yet water quality problems related to HABs continue.

We do commend the state’s past expansion of regulatory approaches and voluntary programs targeting water quality,

including the 1994 Agricultural Environmental Management program, 1999 and 2009 Concentrated Animal Feeding Operations requirements, 2003 Municipal Separate Storm Sewer Systems (MS4) requirements, and 2019 Drinking Water Source Protection Program. These are critically important for water quality protection. We urge the state to significantly increase funding and staffing for their robust enforcement and implementation, such as the recent \$42M investment in the Eastern Finger Lakes Coalition of Soil and Water Conservation Districts. These investments are critical.

However, rapidly accelerating climate change-driven impacts to water quality threaten to undermine progress. To safeguard our region's water, stronger protections and more targeted approaches are needed.

Want to learn more? Read both May 2025 testimony letters by Cayuga Lake partners in full at [cayugalake.org](https://www.cayugalake.org). Go to About > Where We Stand.

### **REMINDER!**

When it comes to HABs, knowledge is power. Stay informed and know the signs of HABs so that you can confidently and safely enjoy the lake all year long. From June through early September, our weekly HABs email updates keep you informed about where blooms are occurring and how to recognize them. Blooms can change rapidly, hour to hour. Be observant when swimming, boating, or letting pets near the water. Help us spread the word! Shoreline residents should check out the "Lakeside Water User Toolkit" from our 2025 weekly HABs Newsletter issue #5. Subscribe and view past issues at <https://www.cayugalake.org/harmful-algal-blooms/habs-updates/>.



*Harmful Algal Bloom at former  
Camp Barton, Town of Ulysses*

# Finger Lakes Wineries and vineyards embrace sustainability



**Tim Martinson** CLWN Board Member & Sr Extension Associate Emeritus Cornell University

## Introduction

CLWN often receives questions from members and the community who are interested in how wineries across our watershed and the Finger Lakes impact water quality, and what types of practices are used on vineyards to protect the lakes we love. CLWN Board Member Tim Martinson offers new expertise and insight.

The New York Wine and Grape Foundation launched the New York Sustainable Winegrowing program in 2023. It is a statewide third-party certification program to measure and verify producers' use of production practices that reduce inputs, protect water quality, maintain or enhance soil health, promote biodiversity, and equitable labor practices.

As of late 2024, 70 vineyards across New York have received certification. In the Finger Lakes, fifty-five of them, representing about 2900 acres—one-third of the vineyard acreage in the region—have been certified.

## What does it mean to be certified?

To be certified, a grower has to first complete a self-assessment workbook titled *VineBalance: New York Guide to Sustainable Viticulture*.

The VineBalance workbook uses a series of 134 questions that address in detail the whole range of production and business management practices that growers face. Each question presents four alternative management practices, ordered from least to most sustainable, and the grower chooses the one that best fits their current practices.

Topics include: soil conservation practices, vineyard floor

management, disease and insect management, spray equipment design and maintenance, pesticide mixing and loading practices, measures of biodiversity, and employee well-being.

Completing the workbook allows the growers to pinpoint areas where they are doing well, and areas that need improvement. The final part of the workbook is an "action plan" template for growers to set specific goals, tasks, and establish a timeline for any desired improvements.

It is important to note that while 3rd party certification is a recent development in the Finger Lakes, the *VineBalance* workbook has been used by growers to assess their practices since its release in 2007.



*Diversion ditches placed at intervals on a sloped vineyard channel water across the slope, slowing its velocity and thereby preventing concentrated downslope water flow.*



[www.vinebalance.com](http://www.vinebalance.com)

## New York Guide to Sustainable Viticulture Practices Grower Self-Assessment Workbook



Cornell University  
Cooperative Extension

Alice Wise  
Senior Extension Resource Educator, Viticulture,  
Cornell Cooperative Extension of Suffolk County

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Cornell Cooperative Extension of Suffolk County



Production Funded by:



VineBALANCE New York Guide to Sustainable Viticulture Practices  
Sustainable Viticulture In the NORTHEAST 1

## How vineyard practices affect water quality of the Finger Lakes.

It's a little hard to cover the wide range of topics in a brief article, but I'd like to highlight a few areas where growers have adopted practices that reduce impacts on ground and surface water:

### Soil Conservation practices.

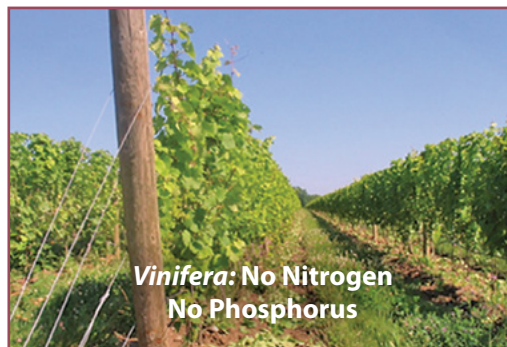
Most vineyards are planted on the slopes surrounding the lake. This means it is important to manage how water flows in the vineyard. For many vineyards, this means consulting with local Soil and Water Conservation technicians to design and install diversion ditches that break up slopes and channel water across the slope. This

## Examples of Sustainable Growing Practices

greatly reduces the down-slope speed at which the water flows, reducing erosion. Having vineyard rows that run perpendicular to the slope (often north and south) also provides some of the same effect.

### **Vineyard Floor Management:**

Until the mid 1980s, many growers disked their vineyards 3-4 times each growing season, in the belief that it was important to eliminate any competition with vegetation on the vineyard floor. Unfortunately, this practice left vineyard soils vulnerable to erosion, and the multiple tillage passes led to loss of soil organic matter. Currently, permanent cover crops in row middles are standard practice—and some wine grape growers are also reducing herbicide use under the row, or reducing the width of the undervine weed-free zone.



**Adding Organic Matter.** Finger Lakes growers around Keuka Lake pioneered the use of round bales as row-middle mulches—again in the mid 1980s and early 1990s. The straw mulch is applied with a tractor-mounted attachment that unrolls the bales like a roll of toilet paper, leaving a 4-6 inch thick layer on the surface. It is applied after harvest to alternate rows every other year—and has many benefits. It reduces erosion (by absorbing the force of raindrops hitting the soil), suppresses weeds, and conserves soil moisture. By the end of the following growing season, it decomposes, adding organic matter to the soil.

**Fertilizer use.** From a water quality standpoint, excess nitrogen (leaches into groundwater; volatilizes as a greenhouse gas) and phosphorus (a limiting nutrient for algae in surface water) are the major concerns. Many growers—particularly those with premium *vinifera* wine varieties—apply no nitrogen. Excess nitrogen can promote excess vigor and reduce fruit quality. And phosphorus tends to be applied only before planting when the vineyard is first established. Potassium (removed in significant amounts by fruit) and lime (to adjust soil pH) are the major soil amendments used by growers. To me, this means that vineyards are not contributing to additional phosphorus loading or nitrogen leaching and volatilization, beyond natural soil weathering processes.

**Biodiversity.** The certification program addresses biodiversity, including assessment of non-crop ecological infrastructure, resources for pollinators, woodlots, and wildlife – such as bird nesting boxes. Finger Lakes grape growers have a lot of biodiversity built into their sites, in contrast to some West Coast producers in arid irrigated areas, where they often have to intentionally work at increasing biodiversity. Finger Lakes vineyard size is measured in 10s to 100s of acres, not thousands. Vineyards are interspersed with gorges, woodlots, and seeded-down open areas, not sparse desert vegetation.

### **Integrated Pest Management (IPM).**

Classic European wine grape varieties such as Riesling and Chardonnay are susceptible to five major foliar pathogens. For this reason, growers need to apply several fungicide applications over the course of a growing season to produce quality, disease-free fruit. But IPM methods that incorporate scouting, cultural controls (largely canopy management to increase sunlight exposure to the grape clusters), and timing control efforts to key growth stages (like the period from bloom to fruit set) have reduced inputs and costs to some extent—and biobased fungicides are becoming common and useful.

Over the long term, our grape breeding programs are aimed at producing varieties that are resistant to the major diseases, and that will dramatically reduce the number of sprays needed to protect the fruit. Hybrid varieties, such as Cayuga White, already have some disease resistance and require fewer sprays than the *vinifera* varieties.

## Conclusion

The *New York Sustainable Winegrowing* certification program is based on educational resources and research developed by Cornell and the industry over the past 25 years. The certification and auditing program is meant to evaluate and document practices on each grower's farm—and to provide them with a way of communicating their environmentally aware practices to consumers who purchase their wines. The Finger Lakes industry is embracing the goal of sustainability. It's a success story 25 years in the making.

# HYDRILLA IN CAYUGA LAKE: Tracking, Treatment, and the Path Ahead

Liz Kreitinger *CLWN Steward*

## Discovery and spread

Hydrilla (*Hydrilla verticillata*) is an invasive aquatic plant, originally from Asia, that threatens lakes, rivers and streams in several areas of the United States. It grows rapidly and forms dense green mats in water up to 30 feet deep, making boating, swimming, or fishing in those areas practically impossible. If action is taken quickly when hydrilla is first discovered, before it becomes established, there are treatment options available that can eradicate this plant before it becomes a permanent challenge for managers and communities.

Hydrilla was first discovered in Cayuga Inlet, which flows into the south end of Cayuga Lake near the Ithaca Farmers Market, in August 2011. Since then, it has spread northward along both the east and west shores of Cayuga Lake. Today, its extent includes the mouth of Fall Creek and the southern shelf of the lake along Stewart Park; northward on the east shore to Lansing's Ladoga Bay, Myers Park, and Lansing Harbor, all within Tompkins County.

Hydrilla was first identified in Cayuga County by the Cayuga Lake Floating Classroom in 2016 near the Wells College dock. Since then, it has expanded both north of the dock and south toward Long Point State Park. Hydrilla was also detected at Don's Marina in 2018; however, successful treatment in 2019 has prevented its reappearance. On the west shore in Seneca County, hydrilla has been documented at Sheldrake Point and Wyers Point.

## Treatment and monitoring

A team of educational, research, and public agencies works to monitor and treat for hydrilla in Cayuga Lake. Known infestations are managed according to the Cayuga Lake Hydrilla Management Plan 2021-26, which includes targeted treatments with two herbicides (fluridone and chelated copper) by the United States Army Corps of Engineers (USACE), the New York State Department of Environmental Conservation (NYSDEC), and the Finger Lakes Partnership for Regional Invasive Species Management (FL-PRISM). Local activities are also coordinated by the City of Ithaca and the Cayuga, Tompkins, and Seneca Counties Departments of Health and Soil and Water Conservation Districts.

In 2025, hydrilla is being actively managed in six sites around Cayuga Lake. Two sites, the "Northern Aurora Area" (Cayuga County) and the "Cayuga Lake Inlet Area" (Tompkins County) are being managed by USACE as part of their Cayuga Lake Hydrilla Control Demonstration Project. In 2025, treatment of these sites began the week of June 23rd and continued for ten weeks, concluding the week of August 25th. Treatment focuses on the application of fluridone and chelated copper in delineated treatment areas based on observations of hydrilla beds from fall 2024.

Management in the remaining four sites is overseen by the NYSDEC Regional Aquatic Invasive Species (AIS) Coordinator

**T**o minimize the spread of hydrilla, it's important for everyone to follow best practices when moving watercraft or other recreation gear from one body of water to another. Follow these important steps:

- **AVOID:** Boating through mats of hydrilla. This minimizes fragmentation and spreading of plants.
- **CLEAN:** Mud and/or plant fragments from your boat, propeller, boat trailer, and all gear including waders and boots, before leaving a water body. Rinse equipment and boat hulls with high-pressure and hot water when possible.
- **DRAIN:** All of the water from your boat (including the bilge, live well, motor), trailer, tackle and gear before leaving the area.
- **DRY:** Your boat, trailer, and gear after each use.
- **NEVER:** Release aquarium or water garden plants into the wild. Seal them in a plastic bag and throw them in the trash.
- **LEARN** more about "Clean, Drain, Dry": <https://dec.ny.gov/nature/animals-fish-plants/invasive-species/aquatic/prevent-spread-of-aquatic-invasive-species/clean-drain-dry>

### Calling all boaters!

Please remember to check your boat for aquatic hitchhikers and use the boat washing station if you are launching or taking your boat out of the water at Myers Park in Lansing. These stations are also located at many other high-traffic launches throughout the Finger Lakes.



Myers Park  
Boat Washing Station

ANDY STADLER

and the DEC Invasive Species Control Section. These include the South Aurora Area and Long Point State Park Area in Aurora; Ladoga Bay in Lansing; and the Sheldrake Area in Ovid. An approximately 250-acre area in Wells College Bay is being treated by the USACE and NYSDEC. For treatment and background information, visit: <https://cals.cornell.edu/water-resources-institute/research-themes/aquatic-ecosystems/aquatic-invasive-species/region-7-ais-program> and <https://www.cayugalake.org/resources/hydrilla-information-action/>.

In Cayuga County, the Health Department monitors the drinking water from the Wells College water distribution system during treatment. For more information on this monitoring, go to the following link: <https://www.cayugacounty.us/1540/Eradication-Project-in-Aurora>.

In Tompkins County, the Bolton Point Water System (run by the Southern Cayuga Lake Intermunicipal Commission, serving five communities on the southeast shoreline) and the Tompkins County Department of Whole Health monitor for floridone at Bolton Point and at several sites along the Lansing shoreline. Hydrilla information and 2025 monitoring results are found here: <https://www.tompkinscountyny.gov/All-Departments/Whole-Health/EH/Hydrilla#monitoring>.

There may be more locations where hydrilla has become established along the east and west shorelines beyond where it has been found to date. Monitoring efforts are led by FL-PRISM and NYSDEC staff focused on surveying areas for new patches around marinas and high boat traffic areas.

The Cayuga Lake Watershed Network coordinates public information sharing around the lake. We host annual End of Season Hydrilla Conferences, with reports by the hydrilla project managers to the wider community. The 2024 presentations can be found on our YouTube channel at <https://www.youtube.com/@cayugalakewatershednetwork> and our information page at <https://www.cayugalake.org/resources/hydrilla-information-action/>.

### The future of hydrilla management around Cayuga Lake

The United States Army Corps of Engineers (USACE) has announced that Great Lakes funding for its Cayuga Lake hydrilla project is ending, and its involvement will be significantly scaled back coming years. The New York State Department of Environmental Conservation (NYS DEC) is anticipated to finalize a statewide hydrilla management plan in the next year. It is currently unclear if adequate NYS funding will be made available to fill the management role that USACE has taken on, but local stakeholders are asking for the agency to clarify how eradication vs long-term management strategies will be approached going forward.

Additionally, while the Cayuga Lake eradication program has been designed and adapted based on extensive annual aquatic vegetation monitoring, community members and CLWN are raising important questions about the use of herbicides in the context of long-term management. Is further research and expanded ecosystem monitoring needed to inform science-based decision-making for this program? How will the DEC work with local stakeholders to develop a strategy that prioritizes specific desired outcomes that protect recreation, water quality, and the ecosystem, particularly if it is determined eradication is no longer realistic?

# Rain barrel workshop highlights Lake Friendly Living in action

**Ed Currier** Cayuga Lake LFL coordinator

**Molly Newman** CLWN Program Associate

*We have heard about “finding oneself” in one sense or another, but thinking environmentally, have you found yourself in the Cayuga Lake watershed?*

**AT** [cayugalake.org](https://www.cayugalake.org), find our watershed map under The Watershed/Watershed Maps. Now, “find yourself”—where do you live, on that map? Water that runs off your location eventually makes its way to the lake. Becoming more aware of how your actions affect water quality is a starting goal for your own Lake Friendly Living program.

If you have not yet pledged to take action to protect our watershed, please do so by clicking on Get Involved/Lake Friendly Living. There you will find a dozen best practices to choose from that result in improved water quality. Each of us has the



responsibility to do so. Annually in May, the Lake Friendly Living Coalition brings together lake and watershed associations across the Finger Lakes to promote everyday actions that protect our water. One best practice involves interrupting runoff by using rain barrels to capture stormwater.

For Cayuga Lake’s contribution to Lake Friendly Living Awareness Month, the Network hosted a rain barrel workshop on Saturday, May 24th at Cayuga Shoreline in Interlaken. The workshop demonstrated Lake Friendly Living in action. Simple, at-home practices like using a rain barrel can help reduce stormwater runoff and improve water quality in our watershed. Nearly 30 participants gathered to build 20 rain barrels, each one a step toward protecting Cayuga Lake.

The day kicked off with a brief discussion about the impact of our choices at home, and how collective action supports

*continued on page 10*

# 2025 Canoga Community Conference

## HABs history, monitoring, new technology, & sourcing the cause

**Hilary Lambert** *CLWN Water Writer*

*A lively, well-informed audience of over 70 people attended the Network's Canoga Community Conference on June 25 to hear three Harmful Algal Blooms (HABs) related presentations.*

**O**ur thanks to the Canoga Volunteer Fire Department for providing access to their big meeting space, and to our volunteers and Board members who helped set up the refreshments and made sure there was delicious hot pizza after the presentations. In addition, the Network and partner organizations provided information tables around the room. Thanks to the **Community Science Institute, Discover Cayuga Lake's Watershed Internship Program (WIP) Interns, the Finger Lakes Partnership for Regional Invasive Species Management (FL-PRISM), Seneca County Soil & Water Conservation District, and the Seneca County Health Department** for participating.

The first speaker was Alyssa Johnson, Cayuga Lake HABs Monitoring Program Coordinator at the Community Science Institute: "2024 Cayuga Lake HAB season in review: earliest, latest, and most blooms ever." Johnson explained

that CSI's volunteer HABs Harriers—who monitor weekly for HABs—will continue surveys this summer across all monitoring zones, but that sample collection for lab analysis of HABs composition and toxin concentrations will focus on 14 priority monitoring areas around the lake which have been identified by the Health Departments for each lakeshore county. Resources such as drinking water and recreational water use are vulnerable to potentially toxic HABs outbreaks.

Johnson summarized the 2024 "extreme HABs" season: a record 127 HABs were reported between June 3 and October 31, the longest season ever; and 11 nonconforming "HABs clumps" were collected for a pilot study. There were 98 Harriers, 8 Carriers (who transport water samples to the lab), a drone operator, and a sky diving company supporting this year! Learn more about HABs and CSI at [www.communityscience.org](http://www.communityscience.org). CLWN continues to recruit volunteers and support communications for

this important program, and this presentation is viewable on our website [www.cayugalake.org](http://www.cayugalake.org) under Resources > "Conference Presentations" sub header.

The second speaker was Dr. Lewis McCaffrey, Research Scientist with the NYS Dept of Environmental Conservation, Division of Water, Finger Lakes Watershed Program: "Can we use satellites to identify HABs in the Finger Lakes?" His short answer to this question, provided at the end of an engaging summary of the pilot study and model building: "Satellites can detect HABs in the Finger Lakes—under the right conditions." McCaffrey says at present there are biases in how HABs data are collected. One example is that there are too many volunteer monitors on some lakes, and few or none on others. Last year, 50% of all HABs reported statewide were found in the 11 Finger Lakes, each of which has many well-trained HABs volunteers. There are 2096 regulated lakes

*continued on page 10*

*Alyssa Johnson, Community Science Institute, reports on the Cayuga Lake 2024 HABs season.*



# Thank you to the 80+ attendees & Museum of the Earth!

## Fall 2024 Cayuga Lake Watershed Community Conference

**Liz Kreitinger** CLWN Steward

**ON** December 11, the Cayuga Lake Watershed Network and our sister organization, the Cayuga Lake Watershed Intermunicipal Organization (CWIO), co-hosted our Fall Community Conference at the Paleontological Research Institution's (PRI) Museum of the Earth in Ithaca. Thank you to PRI for generously providing their beautiful space to us! In addition to PRI and CWIO, we want to thank the Community Science Institute, Cayuga Lake Environmental Action Now (CLEAN), Discover Cayuga Lake, and the Tompkins County Soil and Water Conservation District (SWCD) for bringing additional information about lake and watershed programs to share with members and friends during the social hour before talks began.

The presentations and panel focused on nutrient pollution challenges, the DEC's recently finalized Cayuga Lake Total Maximum Daily Load (TMDL) for phosphorus, and implementing current and future water quality work.

**Dr. Dave Matthews** of the Upstate Freshwater Institute emphasized the role of phosphorus in lakes, explaining its different forms, sources, and bioavailability. He highlighted that not all phosphorus is equally available to algae and stressed the need for Best Management Practices that target the most bioavailable forms of phosphorus. Key actions include septic system maintenance, sewer projects, reduction/elimination of residential fertilizer use, improved manure management and minimization of phosphorus fertilizer use on agricultural lands.

**Tony Prestigiacom** of the NYS Dept. of Environmental Conservation Division of Water Finger Lakes Watershed Program discussed the phosphorus Total Maximum Daily Load (TMDL) clean water plan for Cayuga Lake which was approved by the US EPA in July 2024. The TMDL aims for a 30% reduction in total phosphorus loading to meet water quality targets for our lake. The TMDL presents recommendations to cut phosphorus from both point sources like wastewater treatment facilities and non-point sources like agricultural runoff, recognizing that ~90% of the total phosphorus load to the lake comes from non-point source pollution. Implementation is ongoing. Between 2013 and 2022, NYS, Soil and Water Conservation Districts and other entities were awarded over \$14M in funding for projects that reduce phosphorus pollution in our watershed.

**Greg Albrecht** of NYS Dept. of Agriculture and Markets Division of Land and Water Resources presented on the voluntary five-tier Agricultural Environmental Management (AEM) program designed to support farms in planning, implementation, and adoption of Best Management Practices through work with local county Soil and Water Conservation Districts. Albrecht shared trends of AEM participation,

implementation, and investment specifically for the Cayuga Lake Watershed. Work by the SWCDs, farmers, and partners has resulted in 2x more NYS investment per acre than the State average.

*View the presentation slides at CLWN's Website > Resources > Conference Presentations.*

*A great setting for our conference at Museum of the Earth, Ithaca!*



*Ingrid Zable and Rob Ross of PRI joined to share their expertise on climate and ecosystems with CLWN Conference guests.*



across the state, many with few or no HABs observers.

McCaffrey's DEC team wants to determine if HABs data obtained from satellite imagery of NYS lakes statewide could reduce the bias of bunching up in-person monitoring around a handful of lakes. They compared some of the water quality data collected through CSLAP, the state's volunteer lake monitoring program (stands for Citizens Statewide Lake Assessment Program) with the free data from Sentinel 2, three satellites operated by the European Satellite Agency, which has a 5-day revisit period. They found many challenges to comparing in-person reports to remote data. For example, satellites are confused by duckweed, and lake shoreline details are obscure, a problem because that is where most HABs are found. This interesting work will continue. CLWN sponsors and recruits volunteers for the CSLAP program for Cayuga Lake, with the goal of informing NYS long term water quality monitoring and research. Dr. McCaffrey's presentation is posted on our website under Resources > Conference Presentations.

**The final speaker, Dr. Michael Schummer, is Assistant Professor, SUNY College of Environmental Science and Forestry, Department of**

**Environmental Biology: "Microbial source-tracking: an evidence-based approach to improving Cayuga Lake water quality."** The purpose of this research was to determine the animal sources—by species—of nutrients flowing into Cayuga Lake, to deliver science-based information to watershed decision-makers and land managers.

For three years, four trained CLWN volunteers have been sampling water from the mouths of 8 creeks along the Seneca County and Cayuga County shoreline of Cayuga Lake. They conducted 36 sample events, took 287 samples, 2 to 3 times per month, year-round from March 2021 to January 2024. This epic endeavor was carried out by volunteers Bill Ebert, Tom Casella, and Brad and Holly Davidson, Network members who were trained over the years by both CSI and Upstate Freshwater Institute. Thanks to support from SUNY ESF, this project was managed by M.S. student Emma Bland, with advisory oversight by Schummer, Dr. Hyatt Green, and CLWN Steward Liz Kreitingner. Funding was provided via the Network thanks to Emerson Foundation grants and private donations.

Researchers used a lab method called **Microbial Source Tracking (MST)** to identify sources of fecal contamination

in local streams. This technology looks for tiny fragments of DNA from bacteria that live in the guts of different animals—in this case, humans, dogs, birds, and ruminants (like cows and deer). While MST can't differentiate between cows and deer, cows generally produce far more manure than deer, meaning their impact on water quality is typically much more significant.

Overall, across the studied creeks, results suggest tributary phosphorus pollution originated predominantly from ruminants but there is interesting differences between creeks. Detailed analysis and findings are being prepared for manuscript publication in a scientific peer-reviewed journal and additional outreach presentations are planned for land managers.

Schummer listed several potential applications for these results, including increasing riparian buffer zones, re-establishing hedgerows, investigating impacts of land use practices and increased tile drain usage, and notifying land managers of potential human sewage contamination. CLWN will share the results of this work online and in print once the professional research publication is finalized.

## Rain barrel workshop highlights Lake Friendly Living in action *continued from page 7*

a healthier lake. Then the real fun began—everyone rushed to grab barrels and tools! By the end, each person walked away with their own finished rain barrel and new knowledge about protecting water at the source.

Workshops like this remind us that everyone has a role to play. The Lake Friendly Living program encourages residents to adopt simple habits that collectively make a big difference for the health of Cayuga Lake and the entire Finger Lakes region.

A big thank you goes out to our partners who helped make the event possible: **Seneca County Soil and Water Conservation District** for helping offset the cost, **Cayuga Shoreline** for donating the event space, and **Ithaca Soy** for generously providing the 50-gallon barrels.



# CLWN ANNUAL APPEAL 2025

To our members, supporters, and everyone who loves the waters of Cayuga Lake and its creeks, streams, ponds, ditches, waterfalls, and wetlands!

**Please help us raise the money needed to protect and keep our watershed healthy.**

**The Cayuga Lake Watershed is our shared lifeline:** It provides drinking water to over 100,000 people, sustains farms and businesses, and offers opportunities for recreation and contemplation.

**Yet it faces growing threats:** Harmful algal blooms close beaches and endanger drinking water; and torrential downpours flood communities and carry pollution downstream.

**Meanwhile,** federal support and protections for water and the environment are being slashed.

If we don't stand together for Cayuga Lake's future, who will? Help us protect the places & waters we love.

**Thanks to supporters like you, in 2025 we have already:**

- Hosted our HABs-focused Spring Community Conference in Canoga.
- Completed the pioneering Microbial Source Tracking Project with SUNY-ESF.
- Collaborated with partners to give HABs testimony to the NYS Senate.
- Expanded Lake Friendly Living outreach.

**With your renewed support we will:**

- Scale up water protection projects for tangible outcomes now.

- Catalyze community-supported watershed restoration where public funding falls short.
- Advocate for science-driven watershed protections at the state and local levels.
- Engage new voices in stewardship by expanding our network of members, volunteers, and partners united for Cayuga Lake.

**Every gift—large or small—fuels this work. Thank you.**

*Liz Kreitinger*

Liz Kreitinger, Steward/Executive Director

*Keith Batman*

Keith Batman, Chair, Board of Directors

*If we don't stand together for Cayuga Lake's future, who will? Help us protect the places & waters we love.*



CADY FONTANA

## How to join, renew, donate—today

### MAIL A CHECK

To us using the enclosed pre-addressed envelope or your own envelope addressed to Cayuga Lake Watershed Network P.O. Box 1033, Trumansburg NY 14886.

### GO TO OUR MEMBER/DONATE PAGE

Under Get Involved at [www.cayugalake.org](http://www.cayugalake.org)

### CONTACT US

For information about other giving options including stocks, IRA distributions, and bequests [steward@cayugalake.org](mailto:steward@cayugalake.org) or 315-367-4805.

**THANK YOU** — your generosity inspires our work for Cayuga Lake every day.



**USE THIS QR CODE**  
to donate online



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## Our Mission...

To advocate for the health  
of Cayuga Lake and its  
watershed in a changing world.

## Our Vision...

A network of individuals,  
institutions, and communities  
united in protecting our  
region's water resources for  
people and nature.

## Cayuga Lake Watershed Network

POB 1033  
Trumansburg, NY, 14886  
315-367-4805  
www.cayugalake.org

## OFFICE HOURS

By appointment at our Cayuga  
Nature Center office or online  
by video conference.

Newsletter Editor-in-Chief:

**Liz Kreitinger**

Newsletter Managing Editor:

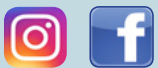
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- 🐦 Educate
- 🐦 Advocate
- 🐦 Protect

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## Upcoming Events in the Cayuga Lake Watershed & Neighboring Areas

### Workshop: Data-Driven Stewardship Analyzing and Protecting Aquatic Systems Saturday, October 4th, 11am to 5:30pm

Aboard the MV *Teal* on Cayuga Lake, and at the  
Museum of the Earth. Educators please join us  
for this free workshop focused on Harmful Algal  
Blooms! Please tell a friend and bring them along.  
**Register here:** <https://tinyurl.com/4y29u6yp>

### NYSFOLA Finger Lakes and Western NY Regional Conference

**Saturday, October 25, 2025: 9:30am Coffee  
and Refreshments, 10am to 2:30pm Program**

**The Woods, 6021 State Route 21, Naples, NY**  
Join the New York State Federation of Lake  
Associations for our 32nd Annual Western NY  
Regional Conference for a day of engaging with  
other lake associations and some water quality  
experts, and to hear about lake and watershed  
issues and initiatives in the region.

**View the conference program:** <https://nysfola.org/2025-western-regional/>

**Registration** is \$30 and includes a buffet lunch:  
<https://nysfola.org/2025-western-regional/>

### Cayuga Lake Cruises with Discover Cayuga Lake May-October (times vary by cruise type and month)

From relaxing sunset cruises, to interactive eco-  
cruises, there's something for everyone on the  
MV *Teal*! Cruises typically run 1.5 hours and  
are accompanied by friendly and knowledgeable  
crew members. Most are family-friendly or even  
kid-oriented, though we save a few of our cruises  
for our adult friends. You are welcome to bring  
your own food and beverages on board. **Learn  
more:** <https://discovercayugalake.org/discover-cayuga-lake-community-cruises-community-events/>

### The Network's South End Community Conference

**Fall/Winter 2025**—date TBD, stay tuned to our  
monthly E-News for updates.

### The Cayuga Lake Task Force Annual Hydrilla Information Session

**Fall/Winter 2025**—date TBD, stay tuned to our  
monthly E-News for updates.

**Subscribe to our free monthly E-News:**  
<https://www.cayugalake.org/resources/newsletters/>