

Network News

It takes a Network to protect a watershed.



Hydrilla found along the Sheldrake-Wyers shoreline: Treatment, monitoring and outreach for 2023

Hilary Lambert *past CLWN Executive Director*
Liz Kreitinger *CLWN Executive Director*

*During 2022, the NYS Department of Environmental Conservation (DEC) joined the US Army Corps of Engineers (US ACE) and Cayuga Lake Hydrilla Task Force partners to monitor and control hydrilla (*Hydrilla verticillata*, an aggressive aquatic invasive species (AIS) first detected in Ithaca's Cayuga Inlet in 2011).*

Since then, hydrilla eradication has been the focus of the south-end Cayuga Lake Hydrilla Task Force, which includes the Cayuga Lake Watershed Network (Network), the Finger Lakes Partnership for Regional Invasive Species Management (FL-PRISM), the City of Ithaca, Tompkins County Soil & Water Conservation District (SWCD) and others.

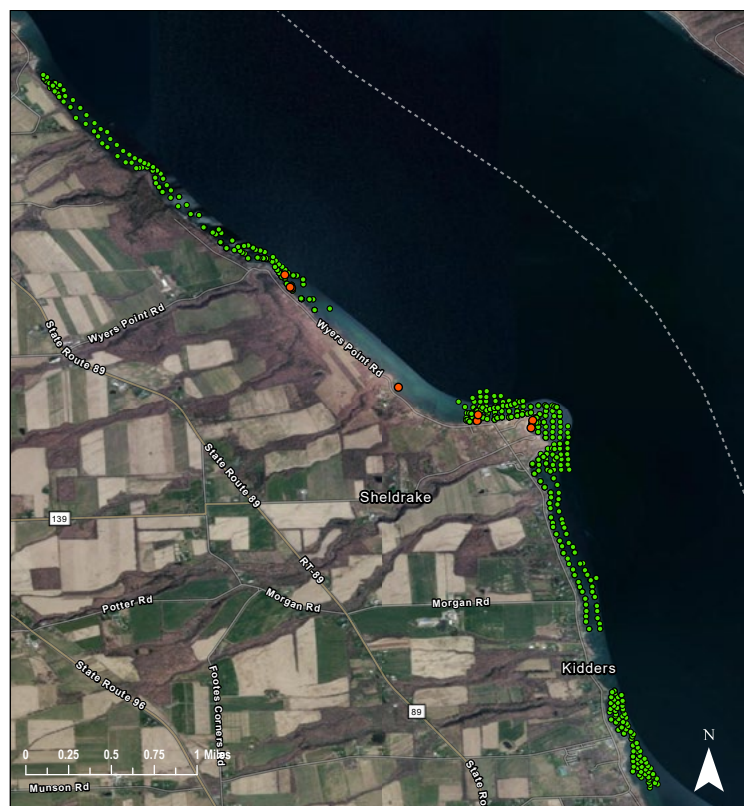
The Network and hardworking volunteers have provided public outreach lake-wide since 2011, with partial funding support from the Community Foundation of Tompkins County, FL-PRISM and Tompkins County SWCD. Since 2012, the Network's autumn community conferences have provided a forum for presentations about that year's hydrilla season around Cayuga Lake.

Ten years of reports to the public can be found in the Network's newsletters (<https://www.cayugalake.org/resources/newsletters/>) and, since 2020, viewed via online presentations, available on our YouTube channel <https://www.youtube.com/@cayugalakewatershednetwork/videos>) hydrilla playlist.

Localized treatments succeed, yet infestation expands northward

To date, every reported infestation has been incorporated into the treatment plans of the south-end Hydrilla Task Force,

continued on page 2



2022 NYS DEC Surveys and Results, Cayuga Lake, Sheldrake, NY (Seneca County, DEC Region 8)



- 2022 Hydrilla
- 2022 NYS DEC Rake Toss Survey



This map of the Sheldrake-Wyers area along Cayuga Lake's west shore shows dots where plants were sampled during 2022. Seven red dots between Wyers and Sheldrake points indicate where hydrilla plants were found (best viewed in the online full-color edition of this newsletter, available at our website).



From the Steward's Desk

Dear Reader...

The much anticipated first 2023 Network News has finally arrived! Thank you for your patience and we hope you enjoy this extended issue. Since the beginning of this year, Program Associate Molly Newman and I have put significant energy into strengthening our digital communication tools including the new monthly E-News emails so that our organization can continue to grow in size and in service to meet the needs of our watershed community. We now have ~1,500 people subscribed to our email distribution list! We hope that those of you who subscribe have found the new digital series and cadence of information sharing valuable.

The monthly email E-News, updates, and blog posts help us quickly reach a broader audience, but I appreciate that many members look forward to receiving the printed Network Newsletter in their mailbox for off-screen enjoyment, myself included! For 2023, we are planning to send two issues, this "Spring-Summer" issue and a "Fall-Winter" issue. We are exploring what the new balance between digital and print communications will look like going forward and need to hear from members like you!

We are currently preparing a member survey which will be sent out to help solicit feedback on our outreach and education programs. I hope that you will keep an eye out for that and take the opportunity to help guide the future of our Network. As always, you can reach out to me directly at steward@cayugalake.org or 315-367-4805. I look forward to hearing from you and hope that you will join me for the Network's 25th Anniversary Celebration on August 24th to connect with new and old friends, recognize the many milestones and successes of our organization since it was founded, and ambitiously envision how our work will evolve to meet our communities' needs in the years to come.

Onward!

Liz Kreitinger
Steward & Executive Director

PS—We are so proud of our Network Newsletter and the honors it has received including by the New York State Federation of Lake Associations for outstanding outreach and design. Thanks to many years of hard work by Past-Steward Hilary Lambert, designer Leigh Dezellan of Dezellan DeZign, and Joe Sepi of Pioneer Printing who continue to bring this product to life.

Hydrilla found along the Sheldrake-Wyers shoreline

continued from cover

FL-PRISM, and the US ACE. As a result, the spread has been slow, and treatment has been effective in containing localized infestations. However, the threat of spread continues. The big campaigns to "Clean, Drain, Dry," with voluntary inspections at some public launch sites by Watercraft Stewards, are effective only if boaters participate and follow these practices at their private docks and informal launch sites. Stopping hydrilla from being spread by local boat traffic, which can move fragments of the plant to new sites within the lake, remains a serious challenge.

As a result, the general trend for hydrilla in Cayuga Lake since 2011 has been a slow but steady movement northward along the east shore of the lake. Where hydrilla patches have been found, and treatments have been implemented, they have been successful in locally reducing hydrilla density. These areas include the southern shelf of Cayuga Lake, the mouth of Fall Creek, Cayuga Inlet, marinas in King Ferry and Lansing, and along the Aurora shoreline. While hydrilla density within the treated Aurora infestation is declining, in 2022 survey work found patches further to the north between Gully Road and Great Gully Creek, and south near Long Point State Park. Undoubtedly, there are more locations where it has become established along the east and west shorelines beyond where it has been found to date. To confront this spread, monitoring efforts have shifted from local shoreline volunteers organized by the Network to FL-PRISM and DEC staff focused on surveying areas for new patches around marinas and high boat traffic areas.

In 2022 hydrilla was found for the first time on the west shore of Cayuga Lake, 22 miles north of its original 2011 location. Thanks to the DEC's Cayuga Lake Hydrilla Management Plan 2021-26 (available at www.cayugalake.org under the Resources/Hydrilla heading), the state has added new staff and ramped up their monitoring efforts. This new infestation was initially found by SCUBA divers at Sheldrake Point. Follow up surveys by the FL-PRISM and DEC verified the discovery and further delineated the infestation up to Wyers Point on the lake's west shore. The image provided shows the sampling points as a series of dots, with hydrilla plants represented as red dots in the water off the two points of land.

This is a heavily traveled and highly popular stretch of shoreline for boaters, property owners, and recreationists visiting wineries and restaurants. Thanks to the efforts of Hydrilla Hunter volunteers Dave and Joyce Heck and alert local residents, for many years the Network supplied hydrilla information via indoor and outdoor boxes at numerous priority locations around the lake, including the Sheldrake shoreline. It is hoped that locals remain knowledgeable about hydrilla and will be receptive to the treatment plans that DEC and partners are developing for the Sheldrake-Wyers area, beginning in 2023.

Last December, the Network hosted its annual fall hydrilla update mini-conference, with presentations and panel

continued on page 6

Celebrating 25 Years of Watershed Stewardship!

EDUCATION – ENGAGEMENT – ADVOCACY

July 2023

Dear Network friends and supporters,

For a quarter century, we have kept you continuously informed and engaged in the complex process of protecting Cayuga Lake and its creeks. Our past and future success depends on you.

- We need you to help as trained volunteers and community advocates, to control and someday solve the problems of Harmful Algal Blooms, and Aquatic Invasive Species like hydrilla.
- We all must work together across the watershed to develop resilient and sustainable ways of conserving and protecting our water supply as climate change complicates our lives.
- And—we need your financial support to continue this work! With your generous contributions, we can reach our goal of \$25,000 by the Annual Meeting & Picnic on August 24th.

Annual Appeal donations have huge impacts on the Network's successful efforts to protect Cayuga Lake.

PLEASE HELP MAKE THE DIFFERENCE THIS YEAR!
WAYS TO GIVE:

- **CLICK** to donate at our website www.cayugalake.org
- **SEND** a check made out to CLWN to: CLWN • POB 348 • Aurora NY 13026

Donations are tax deductible. We will mail you a deeply grateful thank you letter for your records.



THANK YOU...

hope to hear from you soon. Have a healthy, positive, water-loving season.

Liz Kreitinger
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Molly Newman
Program Associate
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A New Generation of Leaders Helps our Network Protect the Watershed

Liz Kreitinger *CLWN Executive Director*

In early June, Network Steward Liz Kreitinger and Program Associate Molly Newman hosted 10 interns, including our own Youth Education Intern Siobhan Hull, for an introductory workshop at the Wells College boat house. The interns are all participating in the Watershed Internship Program (WIP) organized by our partners at Discover Cayuga Lake. Through the WIP, generously funded by the Park Foundation, interns from multiple organizations gather weekly for shared opportunities to learn about the breadth of lake and watershed stewardship and explore how each intern's host organization is tackling sustainability challenges throughout the region.

Maps can tell us so much about a place, so we gladly unpacked the many hydrology, geology, land cover, political, and cultural maps from the Network's collection for some Cayuga Lake watershed "geography 101" with the interns. They asked great questions, and we enjoyed the opportunity to provide them with additional important context about the challenges of climate change, land use change, invasive species, and pollution that our lake and watershed face. We also presented an overview of the many scales at which watershed stewardship work occurs—from neighborhoods to the state. The students left with a deeper understanding of why it takes a Network to protect a watershed and we look forward to their end-of-summer project presentations in August! 🐾

2023 Summer Interns

Welcome to the team, Ashley, and Siobhan!

Ashley Stagnari, Cornell '24, is a major in Environment & Sustainability and joins the Network this summer as our full-time HABs and Climate Change Communications Intern. Ashley is participating in our internship as part of her Cornell Fellowship in Environmental & Sustainability Communications. In addition to producing our weekly HABs Newsletter and assisting with the HABs Hotline, Ashley will be updating and sharing our "Watershed Living in a Changing Climate" resources about how residents can help mitigate and build resilience to climate change at home.



Siobhan Hull, Cornell '24, is a double major in the Development Sociology and in Environment & Sustainability. She is our part-time Youth Outreach intern this year and is working on several exciting projects including a web-based library of place-based watershed and Cayuga Lake educational resources. Siobhan is also developing lesson and activity plans for teachers and service/environmental club leaders related to Lake Friendly Living practices. 🐾

Cayuga Lake Watershed Network Celebrates 25 Years of Watershed Education, Engagement, and Advocacy

**You are
invited!**

August 24th • 6-8:30pm • Cayuga Shorelines • 7930 County Rd 153 • Interlaken, NY 14847
SPACE IS LIMITED! Pre-register online at www.cayugalake.org

On August 24, our organization celebrates 25 years of active service in science-based education, community engagement, and advocacy for Cayuga Lake and its watershed. In honor of this milestone, our Annual Picnic and Meeting comprise an Anniversary Celebration, including a look back at our programmatic and advocacy successes over the years and a look forward toward priorities for our organization during this era of rapid change.

Invitations and annual election materials are being sent out by email and post to our members. Members and non-members alike are encouraged to attend. This is a great opportunity to reconnect with friends around the lake, and a chance for everyone to learn more about our organization's legacy. Join us to enjoy good food, drink, and views of Cayuga Lake. We hope to see you there! 🐾

Meet Our New Program Associate Molly Newman

Molly Newman *Program Associate*

I have always been a talker; I make friends at airport terminals, on subway platforms and while standing in line at the store. So, it was no surprise to anyone that I decided to pursue a major in Documentary Production during my first year at Ithaca College. As an avid storyteller among my friends and family, I knew this major would allow me to use my gift of gab to talk about the issues that mattered most to me. Chief among those values was environmental advocacy - as a kid I had always loved camping, kayaking and hiking and I was taught to respect and protect the wilderness that I enjoyed so much. This passion led me to become interested in environmental advocacy, with my undergraduate thesis film focusing on the Keystone XL Pipeline and the efforts to stop the pipeline and end tar sands mining.

After college, I worked in marketing video production for several years, but

my excitement for mission-based work led me to the nonprofit sector. In 2017, I moved to Beirut to do refugee relief work for families escaping the war in Syria. As a fundraising officer for a small non-profit, I helped secure medical funding for refugee children. Later that year, I moved to Greece to work at a refugee camp and oversaw programs at the “Pink House,” a center for female residents. These powerful experiences fueled my drive to continue in the non-profit sector.

After returning home to Ithaca, I worked for a fundraising support company where I gained valuable knowledge about various types of nonprofits and campaign techniques. While I found the work fulfilling, the company eventually went all remote, and I missed building connections and directly engaging with my community for work.

For all these reasons, I’m so excited to



have joined the Network in late 2022 as the new Program Associate. I’m eager to explore new communication methods, to expand our reach, and to further develop programs that educate and empower individuals to protect Cayuga Lake and its tributaries everyday, including through the Cayuga Lake Friendly Living Program and Embrace the Lake litter clean-ups. In my free time you’ll find me in my garden, exploring the lake on my paddleboard, or working with my husband to run our business the Ithaca Ice Company (yes the water theme runs deep)! 🐾

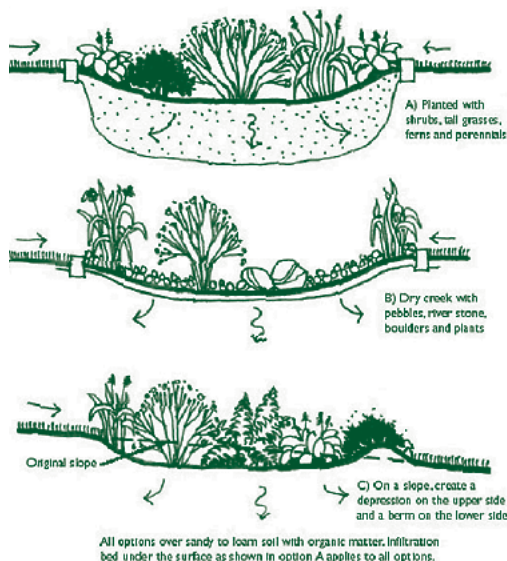
Raingardens for Runoff Reduction

Liz Kreitinger *Executive Director*

May was Lake Friendly Living Awareness Month, and the Network partnered with Seneca County Soil & Water Conservation District, Seneca County Cooperative Extension, and Owasco Watershed and Lake Association (OWLA) to teach watershed residents about the benefits of Rain Gardens.

Ryan Staychock, Seneca County CCE, gave an in-depth talk on rain gardens, how they work, and how to plan and build a rain garden at your home. Kim Mills, from OWLA, shared his experience designing and growing a rain garden at Emerson Park in Auburn, and how he plans to continue to expand this rain garden in the coming months and years.

Rain gardens are becoming increasingly popular in our region as a solution to stormwater management around homes and in public spaces. They are designed to capture rainwater runoff from impervious surfaces such as roofs, driveways, and sidewalks, and to hold and filter the water before it enters



the groundwater system or nearby waterbodies. The benefits of rain gardens are numerous, ranging from reducing pollution and erosion to creating habitats for wildlife and beautifying landscapes.

One of the most significant benefits of rain gardens is their ability to reduce pollution. Rainwater runoff from developed areas often carries with it pollutants such as oil, fertilizers, and pesticides, which can harm ecosystems downstream. Rain gardens help to capture and filter this water, allowing the soil and plants to absorb and process the pollutants naturally. As a result, rain gardens are effective in improving water quality and reducing the amount of

pollution that enters our waterways.

Rain gardens also help to reduce erosion. During heavy rainstorms, water runoff can create gullies and wash away topsoil. Rain gardens act as a buffer by slowing down the flow

continued on page 10

discussion to keep the public informed on the status of hydrilla in Cayuga Lake. The DEC's findings and 2023 plans can be viewed in the presentation by NYS DEC's Region 7 Aquatic Invasive Species coordinator Mike Robinson at the Network's YouTube channel ("Hydrilla in Cayuga Lake:2022 Updates and Panel Discussion"). There you can also find presentations by the US ACE and FL-PRISM that cover the east shore and southern end hydrilla management efforts, as well as a presentation by the NYS Office of Parks Recreations and Historic Preservation on their watercraft inspection and education program.

The Network continues to keep the public updated about hydrilla around Cayuga Lake during 2023. On June 8th, Network Steward Liz Kreitinger hosted a pre-management season Public Information Session in partnership with the Cayuga Lake Hydrilla Taskforce. Sam Beck-Andersen, Associate Director of Invasive Species Programs and Coordinator of the Finger Lakes PRISM, Richard Ruby, Biologist at the USACE, and Mike Robinson, Region 7 Aquatic Invasive Species Coordinator for the NY DEC each gave an update on their

agencies' treatment plans for 2023, in addition to an overview of the reasons why controlling the spread and eradication of known patches of Hydrilla remains a priority for our lake.

The full session can be viewed at <https://www.youtube.com/@cayugalakewatershednetwork/videos>.

On June 15th, the Network held an in-person open house event at Sheldrake Point about hydrilla and other programs to protect lake and watershed health. Thank you to key partners Mary Jump, Director of Environmental Services for Seneca County Health Department, and Erin Peruzinni, District Manager for the Seneca County Soil and Water Conservation District, who joined in the outreach efforts on behalf of their agencies. Special thanks to Chuck Tauck and Fran Littin, owners of Sheldrake Point Winery, and their team for generously providing space and refreshments for this event as well as Jan Quarles for her assistance in sharing information within the local community. The Network will continue to inform the public about hydrilla. 🐾

Answers to questions from the audience at our 12/1/2022 Hydrilla Community Conference session

We received a number of questions that needed detailed responses, provided here.

Have data been collected to better understand the implications of hydrilla control methods used on native plant and fish species in or around the affected marinas on Cayuga Lake?

Hydrilla grows aggressively—each stem on a hydrilla plant can grow up to an inch per day, creating a thick mat of vegetation when it reaches the water's surface, crowding out other aquatic plants. Hydrilla can grow in water depths from a few inches to over 20 feet deep. Its density crowds out native plants, and thick infestations reduce fish and turtle habitat, swimming, and water play. It makes boat paddling difficult and gets tangled in outboard motors. Watercraft get hung up in dense stands of hydrilla to the point where docks and slips become unusable. For example, in Florida lakes, which are heavily impacted by hydrilla growth, lanes are mown for boat travel and swimming. As a result of these rapid, dense growth factors, a hydrilla infestation leads to a decline in native plant diversity and abundance.

This is why it is so important to catch an infestation early, when only a few plants have been detected at a site. If hydrilla is allowed to take hold and spread, it is almost impossible to eradicate.

Of the several methods of treatment available, specialized mats have been used with some success in small areas at the south end of Cayuga Lake to smother the plants over several seasons. Simply pulling out the plants does nothing to prevent spread, because the tubers are embedded deep in the lake bottom sediment and continue to grow and spread along the lake bottom.

More effective are targeted doses of several herbicides that are scattered in granular form within the infested areas or applied directly to the plants in liquid form. These are the well-tested products used by the US ACE to control hydrilla in Cayuga Inlet, the mouth of Fall Creek, across the Stewart Park

waterfront, along the Village of Aurora shoreline, and in several specific marinas on the lake's east shore. Use of these herbicides in contained areas such as marinas or small coves can also be effective.

Studies of impacts of treatment on native plants in Cayuga Lake were carried out repeatedly over several years by aquatic ecologist Robert Johnson and his crew. Before, during, and after each treatment season, they sampled all plant species in a grid across the southern end of Cayuga Lake and reported on plant numbers and health, over time. Their conclusions were that chemical treatments of the types described above are not significantly harmful to native species. Plant surveys by the US ACE have shown some re-establishment of native plants at treatment sites once hydrilla density is reduced. Frequently, other opportunistic invasive plants which are already well established in our lake will colonize these sites, but their ecological and recreational impact are considered far less threatening than hydrilla.

Learn more about hydrilla management approaches at the Tompkins County Cornell Cooperative Extension website <https://ccetompkins.org/environment/aquatic-invasives/Hydrilla/management-options>.

What is the 2023 monitoring and treatment plan for the Sheldrake/Wyers hydrilla infestation?

During the fall and winter of 2022-23, the NYS DEC, US ACE and FL-PRISM met regularly to develop a monitoring and treatment plan for these sites, planned to start during the Summer 2023 season.

Liz Kreitinger, the Network's Executive Director, is a member of the Hydrilla Task Force, the group of agencies and local stakeholders that meets regularly to plan the annual lake-wide hydrilla treatment and monitoring plan. As final details have

emerged, the Network is informing the public lake-wide, via press releases and public events. The Network is working with residents and municipalities on the shoreline in the Town of Ovid to create a transparent local information sharing process. Watch our website and social media for details!

Given hydrilla's current distribution in Cayuga Lake, it appears we have moved from eradication to permanent management. What are the plans to minimize continued spread and respond to recurrences or new finds? What are the plans to protect the other Finger Lakes from infestation? Is anyone totaling the cost of control efforts for Cayuga Lake since treatment and monitoring started in 2011 or past/future impact of fisheries or tourism?

The original Ithaca-based Hydrilla Task Force and the current DEC Cayuga Lake Hydrilla Plan both continue to focus on eradication. The relative cost of control/eradication and of no control, the costs to tourism, etc. were compiled by the Hydrilla Task Force for the Ithaca area during 2011-2012. A study of potential impacts and costs of hydrilla infestation and treatment to local south-end Cayuga Lake tourism, fishing, swimming, etc, and a study of annual financial benefits to the Finger Lakes of clean water for recreational uses were conducted. Annual information is also available on the costs of attempting and failing to manage hydrilla in other states. These reports and data are available in the hydrilla archives held at the Tompkins County Cooperative Extension website.

The 2011 appearance of hydrilla in Cayuga Lake, plus increasing study and control of Aquatic Invasive Species via the FL-PRISM (Finger Lakes Partnership for Regional Invasive Species Management (housed at the Finger Lakes Institute), led to demands for more effective control laws by the the Finger Lakes Regional Watershed Alliance and other community groups. For example, did you know you can be fined for transporting hydrilla on your boat or trailer? <https://www.dec.ny.gov/animals/99141.html>. Additionally, all the Finger Lakes now have annual voluntary boat inspections at their major launches. These are carried out by trained Watercraft Stewards who also provide information about hydrilla and other Aquatic Invasive Species.

More funding for public outreach would be a big boost in keeping hydrilla under control around Cayuga Lake. The Network is very grateful for partial financial support from the Tompkins County Soil and Water Conservation District office, but the actual cost in staff time has been much higher. Long-term funding support for the local, lake based hydrilla public outreach that we have provided since 2011 is critical to continuing this work.

Research indicates that treatment should continue several years after the last hydrilla plant is found—to kill all the tubers. What are the plans for these treatment areas as plants stop being found?

The process of scientifically determining treatment and monitoring timelines is conducted using data and consensus-

driven decision-making. Given that tubers can remain viable 7-10 years, the US ACE, DEC, and FL PRISM return to designated locations for repeated measures over time to evaluate the effectiveness of treatment on the hydrilla tuber bank. The density of tubers in each sediment core sampled is used to assess long-term effectiveness of herbicide treatment, including after treatment ends at a site. A monitoring plan will be put in place after the last planned treatment. For reports and assessments of these issues and the related decisions to reduce or expand treatment and monitoring from 2011-present, go to the Tompkins County Cooperative Extension's online Hydrilla Task Force archives.

The hydrilla at the private boat launches on Cayuga Lake went unreported for years. One marina owner was aware of the hydrilla treatment efforts on the Inlet and still didn't report the plant. Has the State thought about other approaches, especially for marinas?

More precisely, three marinas along the lake's southeast shore that were regularly provided with hydrilla information, brochures, and signs by the Network's volunteer team, ended up with major hydrilla infestations.

The revelation that the hydrilla information was being ignored led to a sense of despair and failure by our original Hydrilla outreach hero, Dave Heck. For Network staff, we took a hard-eyed look at our 75 information sites around the lake, which were being checked regularly and restocked by Network and FL-PRISM staff and volunteers. We decided that the effort and costs were not yielding good results in terms of hydrilla being found early. At present, hydrilla brochures and signs are available at launches and businesses on the shoreline directly adjacent to treatment areas. Thank you to Lynne Leopold, Tom Casella, John Abel, Bill Abel, Jenn Tufano, Michelle Henry, Paul Closs, Dave and Joyce Heck, the Village of Aurora, and to the others who have given your time for this effort.

Fishing tournaments around Cayuga Lake, such as the bass tournament periodically held in Union Springs, are a potential "super spreader" source of hydrilla transport, attracting participants from across the United States. Is there a permitting process? Are tournament organizers required to ensure the absence of highly invasive species at relevant launches prior to the tournament and clean each boat exiting/entering the launch? Are there penalties if boats aren't checked/clean?

In past years, the Network, FL-PRISM, and DEC provided information about hydrilla at vendor tables and for tournament registrants, at several recurring fishing tournaments. There has been some concern that tournament participants from other areas of the United States think that Hydrilla is "good for fish habitat"—a big mistake. Fish do not thrive in dense hydrilla growth areas. State regulations and fines apply at all boat launching and fishing sites. More work could be done with tournament organizers and participants if there was adequate public outreach funding. ➤

Vital Signs of Change in our Watershed

FEMA Flood Hazard Areas Expand as Risk Rises

David Wolfe Cayuga Lake Watershed Network Board of Directors

While flooding is not new to our region, historical data show a substantial increase in the frequency of heavy rainstorms since the 1960s and rising costs from flood damage.

This trend is reflected in preliminary Flood Insurance Rate Maps (FIRMs) (<https://tompkinscountyny.gov/flood-info/FIRMTools>) developed for Tompkins County by the Federal Emergency Management Agency (FEMA). The current Tompkins County FIRMs have not been updated for over 40 years. The map revisions are not final, but they are a reality check for how things have changed. The number of residences and commercial properties within Special Flood Hazard Areas, which require flood insurance, has increased across Tompkins County. The city of Ithaca is by far the most affected, with many heavily populated areas now in a flood hazard areas. Ithaca is particularly vulnerable to flooding because of its relatively low elevation and incoming water from the Inlet as well as Fall, Cascadilla, and Six Mile Creeks.

Special Flood Hazard Areas (SFHAs) are also referred to as base-flood or 100-year flood zones.

There is often confusion around the phrase “100-year flood” zone. You might think this means the area will only flood once every 100 years, but this is not the case. More accurately, these are the areas at risk of flooding at water levels which have a 1-percent chance of occurring or being exceeded, *in any given year*. These areas are considered high risk because they have at least a 1-in-4 chance of flooding during a 30-year mortgage. As a result, mortgage lenders are mandated by the FDIC to ensure all properties they have loans on within a FEMA designated flood hazard zone have flood insurance.

Development & Climate Change Drive Flood Risk

The population of Tompkins County has increased substantially since the last maps were released in 1981. More people means more paved roads, parking lots, and buildings, which, unlike soil, cannot absorb and store rainfall and snowmelt. That water must go somewhere, and not all of our stormwater drains and systems have the capacity to prevent flooding during major storm events.

Climate change is another factor affecting flood risk in our watershed. Rising temperatures cause more evaporation from land and waterbodies, and the warmer atmosphere is able to hold more of that water vapor. When humid air eventually encounters

cooler temperatures, the large amounts of water vapor can quickly condense and come down in a deluge. The increasing intensity of storms has been one of the most pronounced impacts of climate change in our region so far.

Local Process & Response

FEMA recognizes that residents are rightfully concerned about how the updated maps might affect their flood insurance requirements and/or home values. The update process has therefore been extensive and is on-going. FEMA is consulting

with Ithaca and Tompkins County officials, and two public “open house” meetings were held this spring. As the process moves ahead there will be opportunities for formal appeals, and ample time (possibly 1 to 2 years) for the community to make adjustments that reduce flood risk and thereby modify flood zone maps or reduce flood insurance costs for specific properties.

Some recent good news is that Ithaca has obtained

\$1.3 million of funding through the offices of Senators Schumer and Gillibrand that can be used for flood mitigation and resilience efforts. Additional grant opportunities are being explored. These funds could be used for higher capacity storm drainage systems, floodwalls or levees along stream banks, and other infrastructure projects. These actions could significantly reduce the size of the flood zone areas requiring additional insurance. Homeowners in newly mapped flood zones needing insurance will likely be taking advantage of the National Flood Insurance Program (NFIP). Many commercial home insurance companies work with the NFIP. For more information on this program and other options, visit the FEMA “Floodsmart” website (<https://www.floodsmart.gov/how-buy-flood-insurance>).

Now is the time for all watershed residents, especially those in Tompkins County, to engage in this process and learn what local government agencies and individual homeowners can do to minimize flood risk and potential economic impacts. The Cayuga Lake Watershed Network and our local partners will share additional information as it becomes available. Sign up for our email list at www.cayugalake.org and follow us on Facebook and Instagram for updates. 🐾



A USGS researcher collects Flowtracker data during a flooding event. USGS NY Water Science Center.

Congratulations Tom Casella: Recipient of the 2023 James C. White Memorial Prize for Service to Cayuga Lake and Beyond

The Cayuga Lake Watershed Network proudly presented Tom Casella with the James C. White Memorial Prize at our 2023 Spring Community Conference. Many people know how deeply Tom deserves this recognition.



Tom has worked for the past ten-plus years doing water sampling at several creeks on the northwest shore as one of the Community Science Institute's long-running sampling teams; also for the nine sites in the Network's stormwater study being conducted in cooperation with the Upstate Freshwater Institute and SUNY ESF; and in presenting facts, figures, and policy suggestions to Seneca County's Board of Supervisors, Soil and Water Conservation District, Department of Health, and the Finger Lakes Institute.

Tom has also worked for many years in sampling on Cayuga Lake for the annual DEC-led aquatic plant survey study, and for conducting the arduous annual water sampling carried out each summer as for the DEC/NYS Federation

"Tom is a true 'Laker.' He is outgoing, friendly, and a great team member. He always has ideas and suggestion for lake improvement which he communicates effectively to others. But it's not all work and no play—he loves to fish and swim in the lake. Thank you, Tom!"

—Bill Ebert, Cayuga Lake Watershed Network Board Member, sampling teammate & friend

with hydrilla information packets, and helped store them each winter. Also, Tom does not confine his community service solely to Cayuga Lake! Tom lives on the Cayuga Lake shore in the Town of Fayette and is emeritus faculty at the Cayuga Community College in Auburn. He is a well-respected participant in the lake and water quality discussions and planning around Owasco Lake and has helped share information back and forth between communities on both lakes for years.

Thank you to Village of Aurora Mayor Jim Orman and to Cayuga County Legislator Aileen McNabb-Coleman representing State Senator Rachel May's Office for assisting in presenting this award to Tom. 🐾

of Lake Association's Citizens Statewide Lake Assessment Program (CSLAP). Tom pioneered the use of drones to delineate Harmful Algal Blooms along the Seneca County shoreline and has been a HABs sampler—a HABs Harrier—every year since that program began.

That's right—Tom participates as a volunteer in ALL the sampling programs presented during the Spring 2023 Community Conference.

Furthermore, Tom is a hydrilla hero! For at least a decade, he worked with the Network to place hydrilla information boxes around the northern third of the lake each spring, made sure they were well-supplied

The James C. White Memorial Prize *Established Spring 2019*

Dr. James C. White (1916-2018), a longtime lakeshore resident and lover of the Lake, was the founding Chair of the CLWN in 1997-98. After his death on October 2, 2018, his family and friends designated the Network as one of two principal recipients of memorial donations in his honor. Elizabeth Thorndike, herself a pioneering official of the Network, coordinated the establishment of the memorial fund intended to serve as a perpetual memorial for Dr. White by supporting an annual recognition of someone who has made notable contributions to the efforts of the Network to preserve and enhance Cayuga Lake, with a possible emphasis on younger individuals.



Prize criteria

- Nominees should be individuals or entities who, in the spirit of Dr. White, have made outstanding contributions to the efforts of the Cayuga Lake Watershed Network to preserve and enhance the watershed.
- Nominees should reside in the watershed, either seasonally or year-round.
- It is preferred but not necessary that nominees be representative of the younger generation of volunteers, Network members or community members.
- Board members, Network staff members and members of the Network's award committee shall not be eligible for nomination while they are actively serving in one of these capacities.
- The prize is announced and conferred at one of the two annual conferences organized by the Network

The Network welcomes nominations for the James C. White Memorial prize year-round. 🐾

Concerns Surface about Bridge Construction Impacts to Salmon Creek in Lansing

Hilary Lambert *past CLWN Executive Director*

ON August 28, 2022, the new bridge on Route 34B over Salmon Creek in the Town of Lansing was opened to great local celebration. This important link between Ithaca and points north along Cayuga Lake and into Cayuga County had been shut down for reconstruction since January 2021. The 500-foot-long bridge spans the Salmon Creek gorge, 125 feet deep at that point. Upstream is the spectacular Ludlowville Falls, and downstream are Meyers Point and Salt Point, where Salmon Creek flows into Cayuga Lake.

However, in the hurry to replace the bridge, approximately two acres of mature floodplain forest and 600 feet of streambank were cut down, leveled and filled by Tioga Construction Co. Inc., the bridge contractor hired by NYS Department of Transportation (DOT), apparently with no permits approved to carry out these actions.

Reportedly, the bridge replacement project permits were written and approved based on placing construction cranes at the top of the slope. The labor union apparently rejected this proposed approach, due to safety concerns. The contractor purchased a 7-acre parcel on the creek floodplain below the construction site and built a (now eroding) road down the steep slope on the north side of the creek. The trees were removed, and the site was filled with rubble for a construction pad. (The 2022 photo displays the cleared fill pad and streambank, now being invaded by Japanese Knotweed.)

These actions apparently took place without oversight or comment from the NYS Department of Environmental Conservation and Department of Transportation, any Tompkins County agencies, or the Town of Lansing; and no information was made available to the public. Were Environmental Impact Study and permits updated to reflect this modified approach to the project, with the clear-cutting and filling in of the floodplain?

Additionally, CJ Randall, Lansing's Town Planner at the time of this project, reported that DOT did not update their



View of the new bridge over Salmon Creek from the deforested floodplain below.

Stormwater Pollution Prevention plan (SWPPP) when the plans changed. When the contractor purchased the floodplain property and filled it, they apparently claimed that it was their own private property so they could do what they wanted. However, this remained a state project, so the DOT should have updated their SWPPP plan. Also, as lead agency for this project, DOT was supposed to file notice of intent with the Town of Lansing

for this alteration but did not. Prior to departing her Lansing position to become Director of Planning for the Town of Ithaca, Randall informed NYS DEC about the situation.

Andy Zepp, Executive Director of the Finger Lakes Land Trust, arranged a site visit in January 2023 with representatives from Lansing, Tompkins County, DOT and DEC. The DOT representative cancelled their attendance the day before the site visit. The DEC representative stated that their authority stopped at the streambank's edge. Then Town of Lansing planner CJ Randall agreed to pursue some level of mitigation/remediation from DOT.

There are two areas of concern here. One, how can the affected area be protected and restored? A steep, rapidly eroding construction lane provides access just downstream of the new bridge to this stripped site. The original mature wooded wetland provided important riparian functions for Salmon Creek as its waters approach Cayuga Lake, slowing flow and acting as a filter for sediment, other upstream debris, and pollutants. The woodland and streambank also provided habitat for wildlife, birds, and healthy stream biota.

Two, how was this allowed to happen? This site is in a county-designated Unique Natural Area, with documented natural features that indicate its ecological and riparian value. Apparently, the destructive changes and alterations moved forward without meaningful reaction or input by DOT or other agencies, and with no updates to any of the required permits. Perhaps the NYS Department of Transportation should take responsibility to mitigate the situation. ➤

Raingardens for Runoff Reduction *continued from page 5*

of water and allowing it to be absorbed into the ground. This, in turn, helps to stabilize the soil and prevent erosion.

Rain gardens also provide a habitat for wildlife. By planting a variety of native plants in the garden, homeowners can attract birds, butterflies, and other pollinators. Native plants are particularly beneficial because they are adapted to the local climate and require less water and maintenance than non-native plants.

When it comes to selecting plants for your rain garden it is essential to choose plants that are well-suited to the local climate and soil conditions. Some good native plants to use in NYS rain gardens include:

Blue Flag Iris (*Iris versicolor*)—A stunning blue-flowering perennial that prefers wet soil and can thrive in the shallow waters of a rain garden.

continued on back page

CLWN Board Letter of Support for Owasco Lake Watershed Rules & Regulations

March 28, 2023

The Honorable Kathy Hochul Governor of New York State
NYS Capital Building, Albany, NY 12224

RE: Owasco Lake Watershed Rules and Regulations

Cayuga Lake Watershed Network Resolution

Dear Governor Hochul,

The Cayuga Lake Watershed Network (est. 1998) passed a resolution at its January 16th Board of Directors Meeting in support of the Cayuga County Board of Health's recent request that the NYSDOH be directed to complete their review of the proposed draft Owasco Lake Watershed Rules and Regulations.

Our watershed is directly adjacent to the Owasco Lake Watershed. The City of Auburn public water supply, drawn from Owasco Lake, serves residents within our watershed, and Cayuga Lake shares many of the same water quality issues that Owasco Lake is currently experiencing. The Cayuga Lake Watershed Network has followed the progress of the Owasco Lake Watershed efforts to revise their existing watershed rules and regulations for the protection of public drinking water sources and other valuable uses of the lake and tributaries, for years. In 2020, we passed a resolution endorsing the revised Owasco Watershed Rules and Regulations, and requested that the existing, outdated, 1984 Owasco Lake Watershed Rules and Regulations be repealed and replaced with the revised version, which was developed through a thorough, evidence-based process including significant stakeholder engagement.

Microcystin toxin levels measured in the Owasco Lake drinking water sources over the last 5 years threaten to exceed the removal capacity of the treatment system, and the MCL exceedances of disinfection by-product total trihalomethanes (TTHMs) require immediate action to protect the Owasco Lake from further pollution.

NOW, THEREFORE, BE IT RESOLVED that the Cayuga Lake Watershed Network supports the Cayuga County Board of Health's request to Governor Hochul that the NYSDOH complete its review of the Owasco Lake Watershed Rules and Regulations.

By unanimous vote of the Cayuga Lake Watershed Network Board of Directors, signed on behalf of the Cayuga Lake Watershed Network

Date: 3/14/2023

Liz Kreitinger, Steward/Executive Director
Cayuga Lake Watershed Network

Spring 2023 Community Conference Report

Keith Batman Cayuga Lake Watershed Network Board of Directors

ON May 18th, the Network presented its spring community program hosted by Wells College with approximately 75 in attendance from around the lake.

The program featured three presentations. Dr. Dave Matthews of the Upstate Freshwater Institute spoke of long-term water quality trends, temperature and stratification patterns, tributary monitoring, and perspectives on assessment and other issues of monitoring and quality. Among his conclusions, were two that centered on the critical importance of reducing phosphorus loading as the only proven strategy to address eutrophication, and the critical importance of monitoring, including that being carried out by the Network.

Grace Haynes of the Community Science Institute

offered a primer on HABs—their nature, causes, and effects—and presented data on the trends over the past 5 years. As she explained, volunteers (HABs Harriers) provide the critical component of the most thorough HABs monitoring program in NYS. Ms. Haynes offered a very detailed and content-rich look at HABs—too detailed and rich to summarize here. Of interest, however, is the fact that HABs decreased in 2022 for the first time since the program has compiled data. It is also of note and interest that both the majority of all HABs as well as the majority (80%) of HABs high in microcystin toxin, occurred in the northern half of the Lake (north of Sheldrake). She spent the last part of her presentation explaining public access to Cayuga Lake HABs data through the CSI website and plans to launch an improved interactive database for current HABs reports and historic records this year, since published at <http://www.database.communityscience.org/hab>.

The final presentation was by Karl Rindfleisch of the Cayuga County Water and Sewer Authority. He discussed their plan to install public sewage along Honoco Road and other parts of lakefront properties in the Cayuga County towns of Ledyard and Genoa. The project, in cooperation with the Village of Aurora, will replace septic systems for roughly 440+ lake front properties. The Cayuga Lake Protection Plan, as they have named the project, will protect 9 miles of shoreline from the impact of substandard sewage disposal practices, protecting the lake, while updating the Village of Aurora's wastewater treatment plant. Mr. Rindfleisch provided a thorough look at the history of property development along the impacted stretch of lakeshore, the detail of the work to be done and the plan for completion, which at this point is targeted for 2025 or 2026.

Thank you to all who attended! The slides for each of these presentations are posted on our website. 🐾



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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

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- 🦋 Educate
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Current Resident

Upcoming Events in the Cayuga Lake Watershed

Check our website, listserv and Facebook page for announcements about events, and contact steward@cayugalake.org or programs@cayugalake.org for the latest information.

JULY 26: NYS Environmental Bond Act Listening Tour, Virtual Session

<https://www.nysebatour.com/https://www.nysacc.net/2023>

JULY 30: Discover Cayuga Lake Water Quality Monitoring Cruise, with a guest presentation by the Network's Steward. <https://fareharbor.com/embeds/book/discovercayugalake/items/240901/calendar/2023/07/?full-items=yes&a=yes&g4=yes>

AUGUST 18: Community Science Institute Annual Volunteer Picnic, 6-8pm, Camp Comstock, register at www.communityscience.org

AUGUST 24: Cayuga Lake Watershed Network's 25th Celebration at Cayuga Shorelines 6-8:30 pm, 7930 County Rd 153, Interlaken, NY 14847—see page 4 for details and to preregister.

SEPTEMBER 20-22: NYS Association of Conservation Commissions Conference, Ithaca NY & online <https://www.nysacc.net/2023>. The Network's Steward will be presenting a talk for the special Cayuga Lake-focused session. 🦋

Raingardens for Runoff Reduction *continued from page 10*

Joe-Pye Weed (*Eutrochium purpureum*)—A tall perennial that prefers moist soil and produces pink or purple flowers in late summer.

New England Aster (*Symphyotrichum novae-angliae*)—A late-blooming perennial that produces bright purple flowers and attracts butterflies.

Swamp Milkweed (*Asclepias incarnata*)—A perennial that prefers moist soil and produces clusters of pink or white flowers that attract butterflies.

A link to the recording of Ryan Staychock's presentation is available on our YouTube Channel, and you can find the direct link on our website homepage www.cayugalake.org. 🦋