

# Science for Safe Water: Community Partnerships on Cayuga Lake's West Shore

West Shore Neighborhood Association  
Annual Meeting  
8/24/25

Grascen Shidemantle, PhD  
Executive Director  
Community Science Institute



# Agenda

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Intro: Community Science Institute

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*E.coli* monitoring on Cayuga Lake's West Shore

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Cayuga Lake Harmful Algal Bloom Monitoring Program

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Q&A

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CSI Staff

# Agenda

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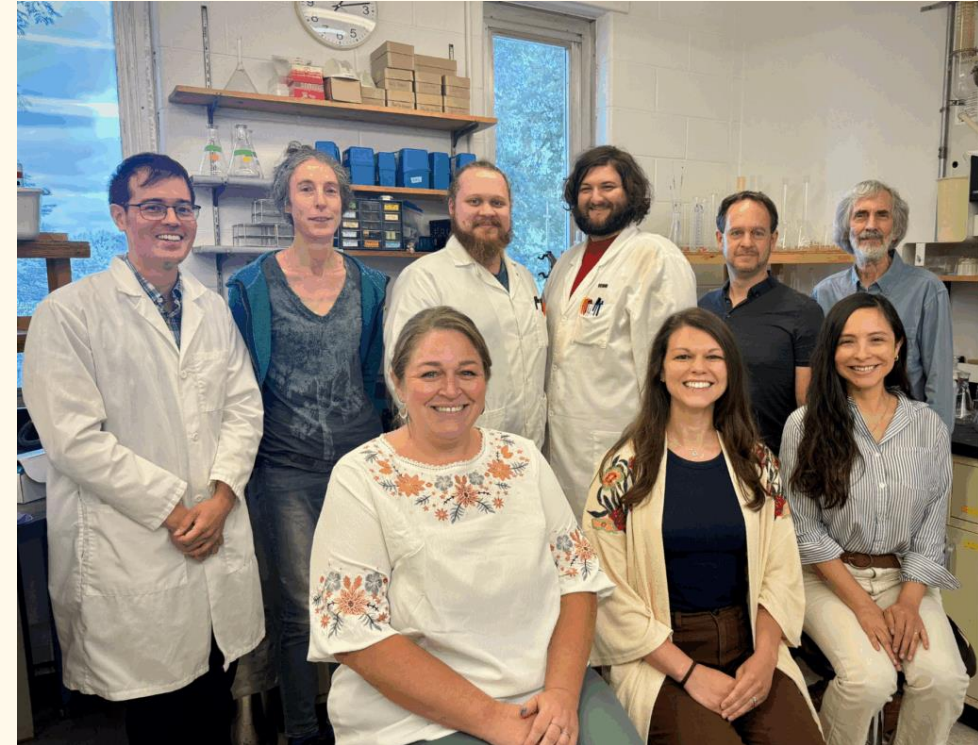
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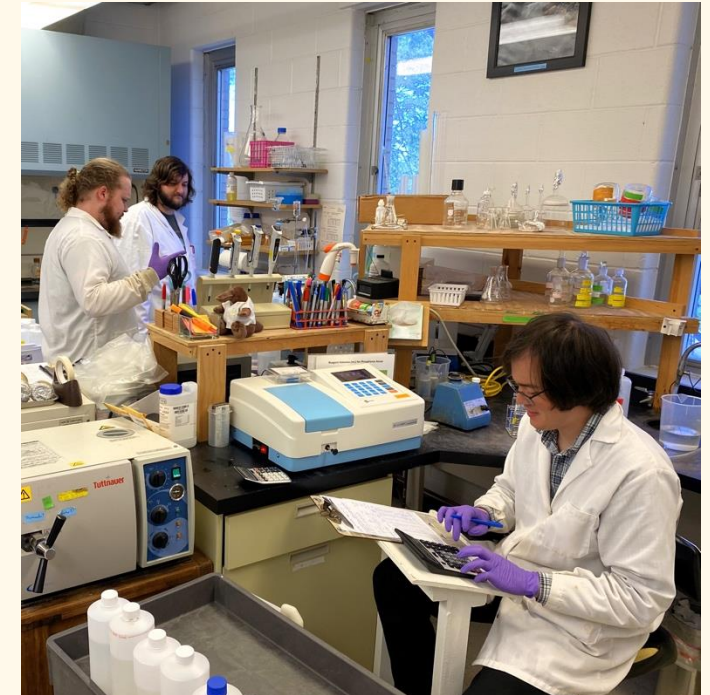
CSI is a 501(c)3 non-profit and NYSDOH-ELAP certified water testing lab in Ithaca, NY



**Volunteer Water Monitoring Partnerships**



**Outreach and Education**

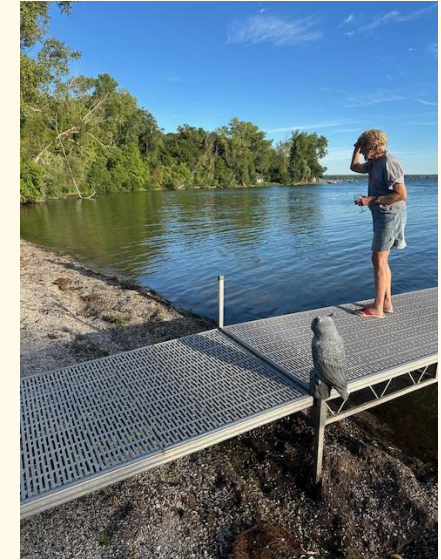


**Fee-for-Service Water Testing**

**Our Mission:** To inspire and empower communities to safeguard water resources by cultivating scientific literacy through volunteer water quality monitoring, certified laboratory analyses, and education.



# CSI's Volunteer Water Monitoring Partnerships



**Synoptic Stream and Lake Monitoring**



**Biomonitoring**

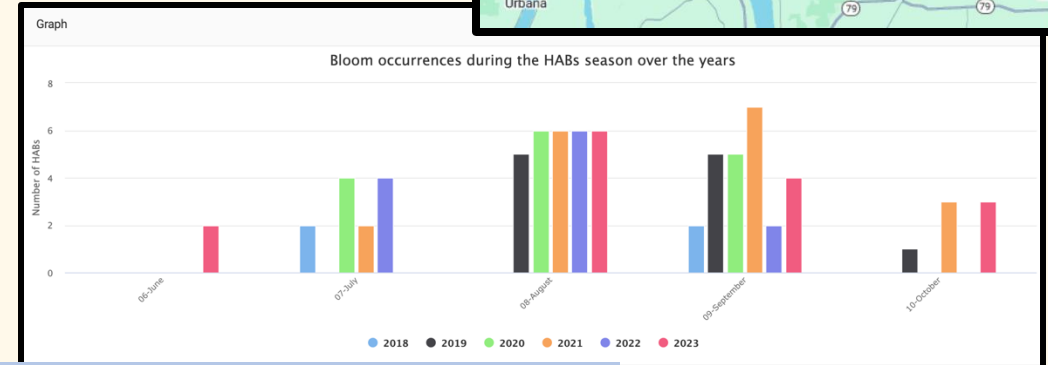
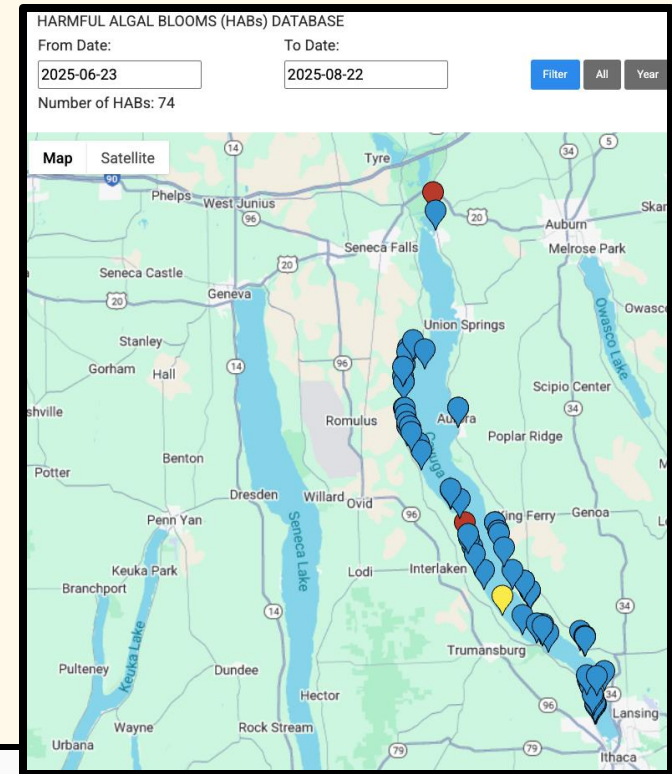
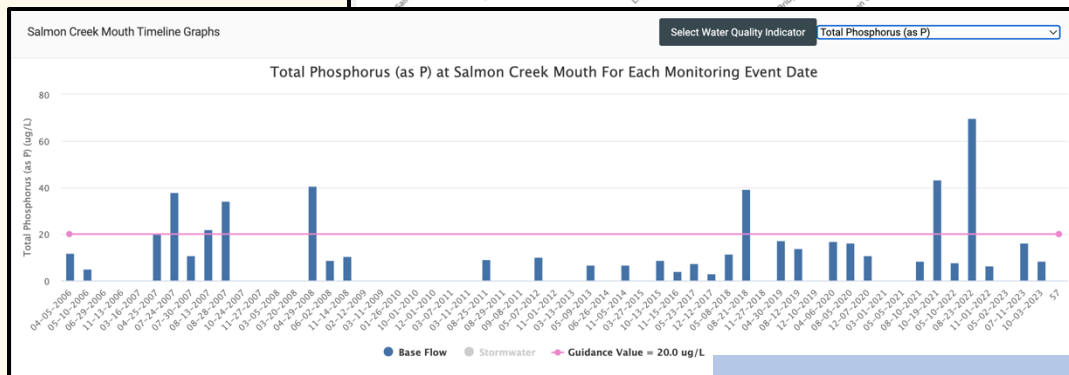
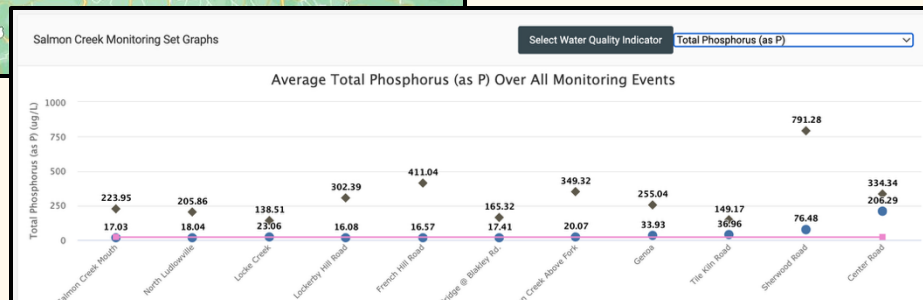
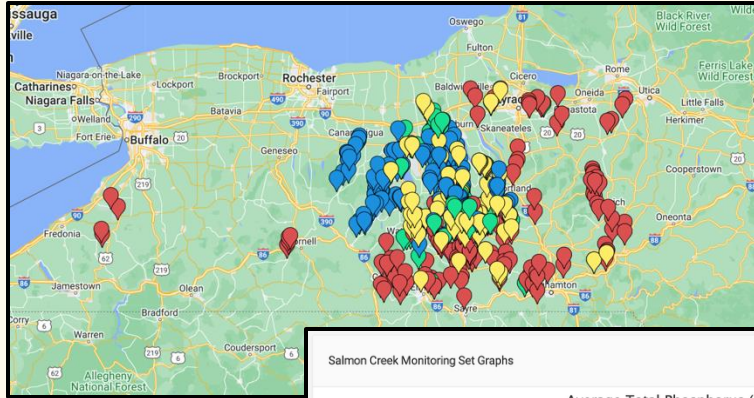


**Cayuga Lake Harmful Algal Bloom (HAB) Monitoring**

# CSI's Water Quality Database

## Stream and Lake Chemistry

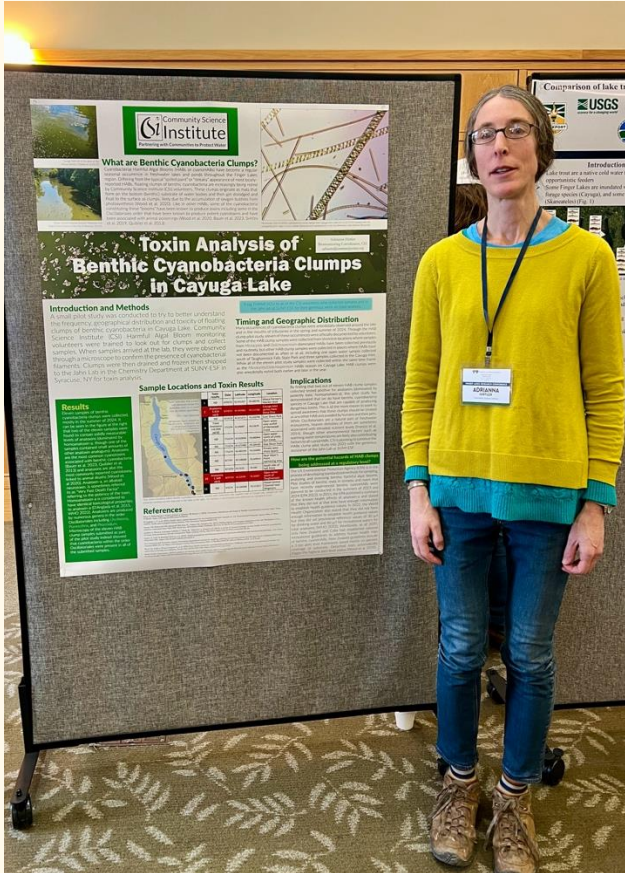
## Harmful Algal Blooms



[www.database.communityscience.org](http://www.database.communityscience.org)



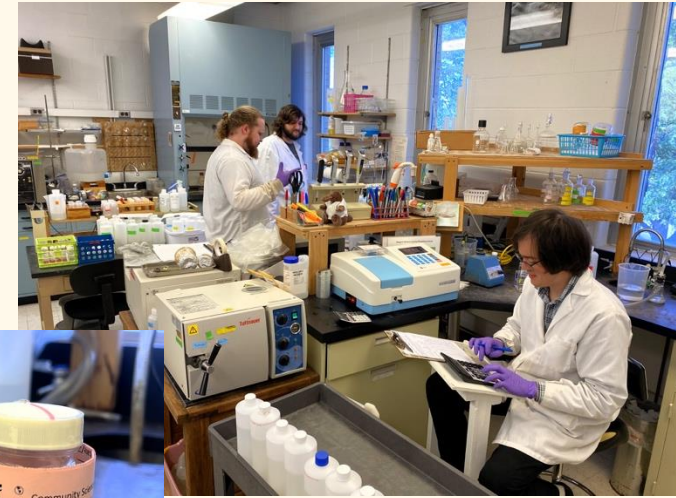
# Outreach and Education





# Fee-for-Service Water Testing

We test water from private wells, municipal water systems, swimming beaches, effluents, and more!



## We serve:

### Residents

- Home sales
- Routine testing
- Health/taste/quality concerns

### Local Businesses

- Farms
- Restaurants
- Breweries
- Wineries
- Mobile Home Parks
- Apartment Buildings

### Government Agencies

- Tompkins County Health Dept.
- NY State Parks
- NYS Dept. of Environmental Conservation
- NYS Dept. of Health



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***E.coli* monitoring on Cayuga Lake's West Shore**

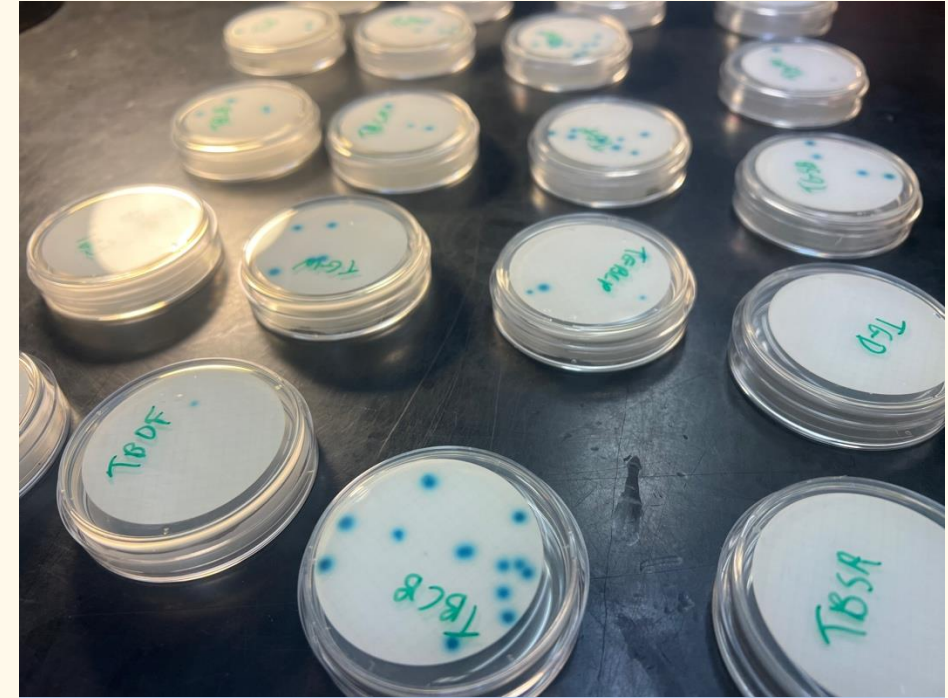
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Cayuga Lake Harmful Algal Bloom Monitoring Program

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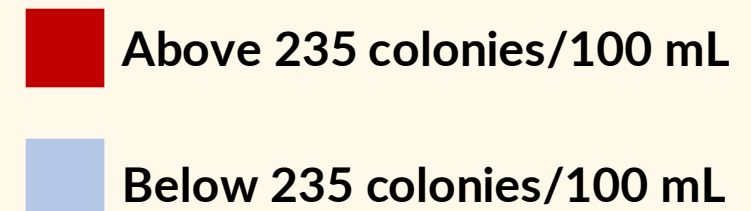
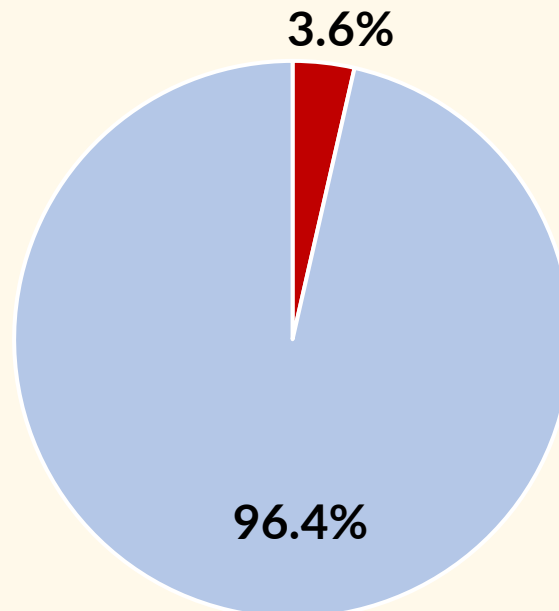
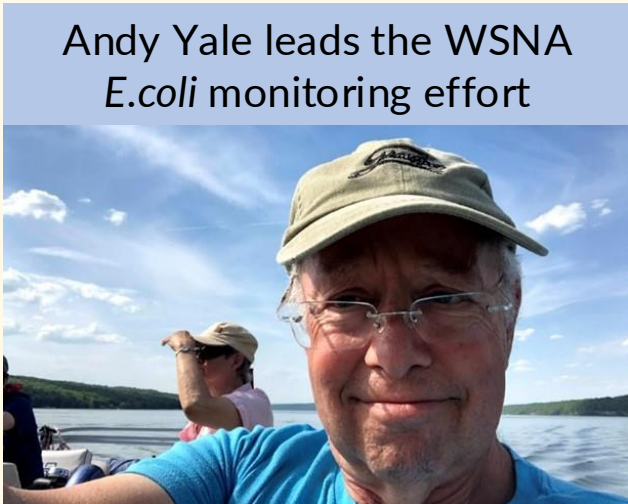
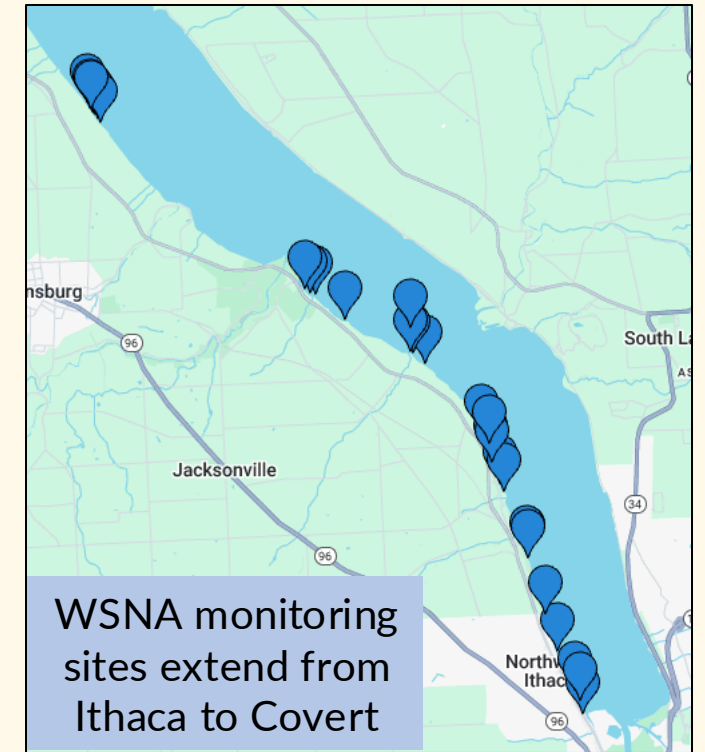
*E.coli* plates

# *E.coli* Monitoring with WSNA

Since June 2014, CSI has partnered with members of WSNA to monitor the west shore of Cayuga Lake for *E.coli* through our Synoptic program

Elevated *E.coli* levels may be a sign of faulty septic systems

*E.coli* monitoring helps us understand swimming safety





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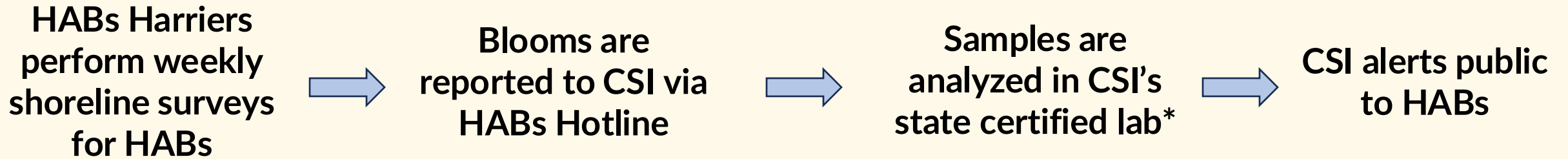
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*Cayuga Lake HAB reported 7/9/25 near Fayette*

# Cayuga Lake Harmful Algal Bloom (HAB) Monitoring Partnership

**Purpose:** Collect actionable data on cyanobacteria blooms, protect public health, and relay bloom information and testing results quickly and efficiently.



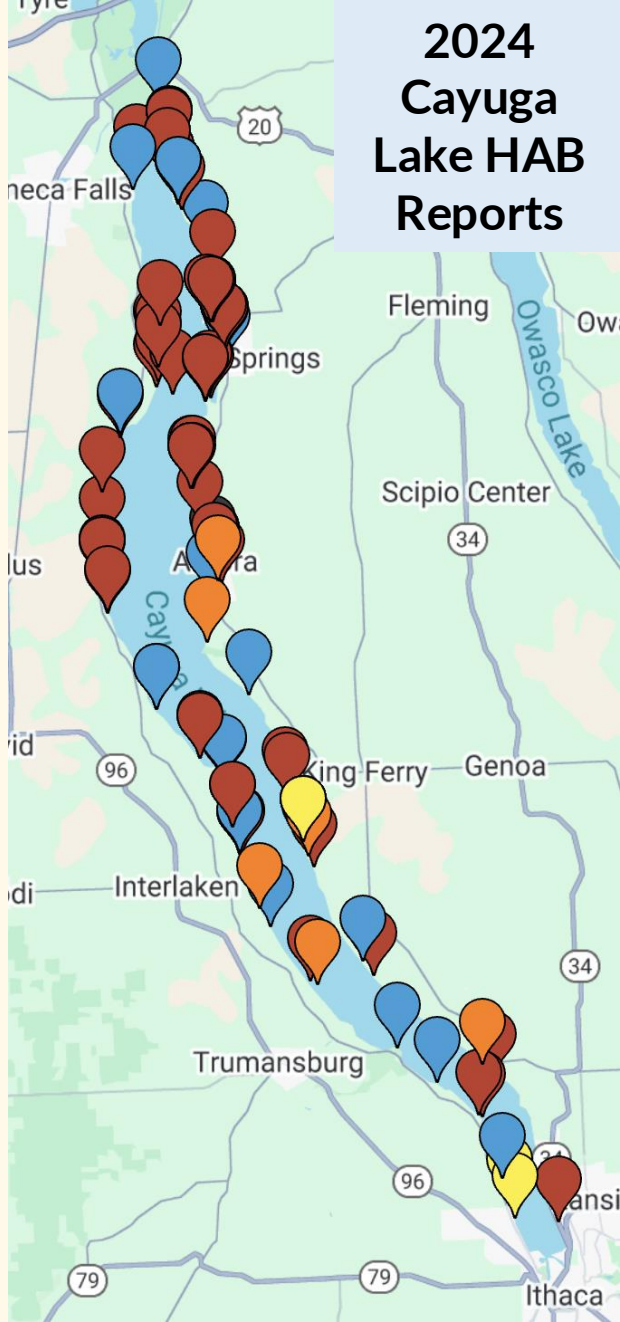
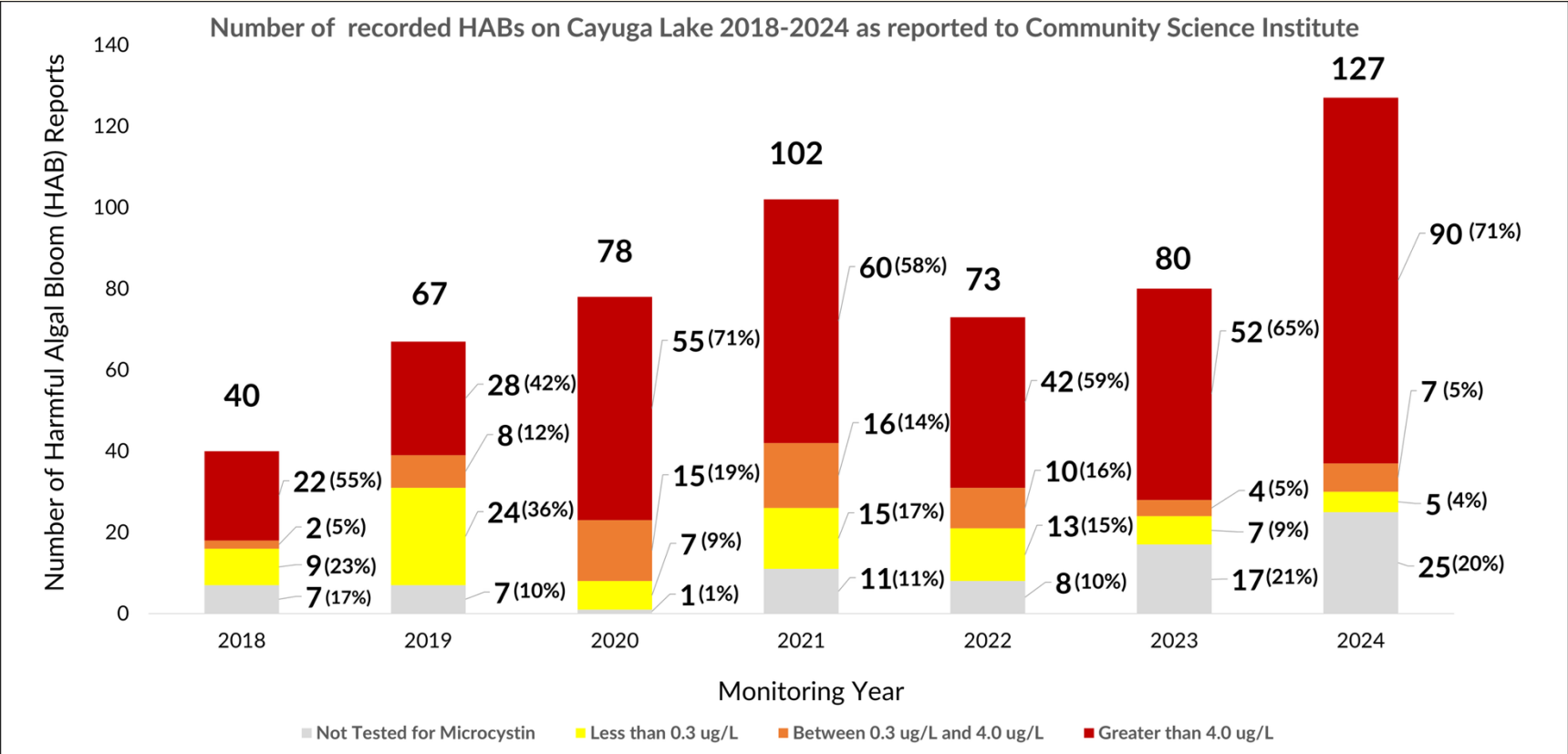
Thank you to the many HAB Harriers on the west shore!

*The Cayuga Lake HABs Monitoring Program is led by CSI in collaboration with CLWN and DCL*



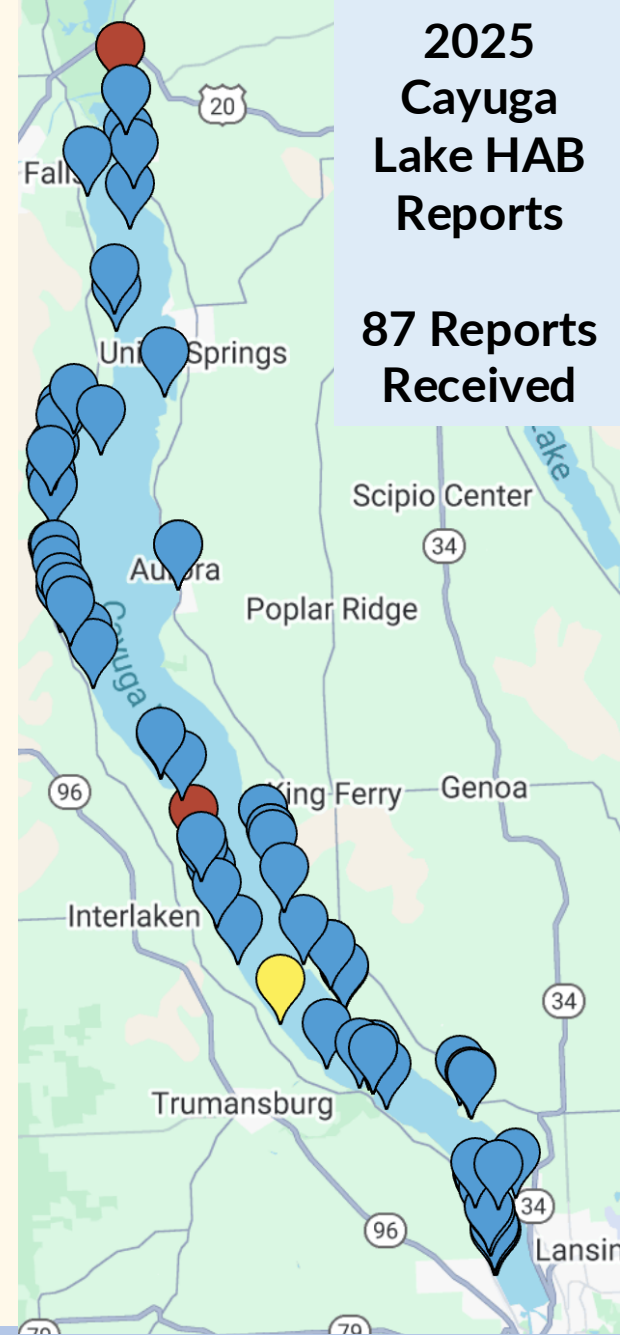
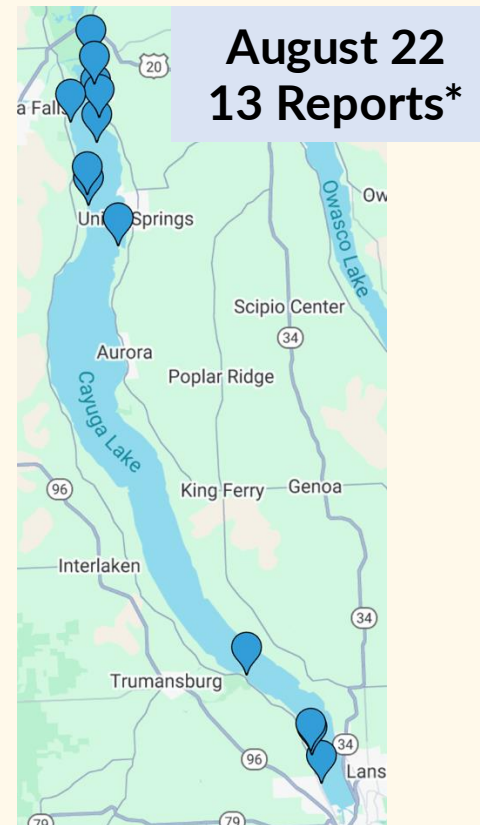
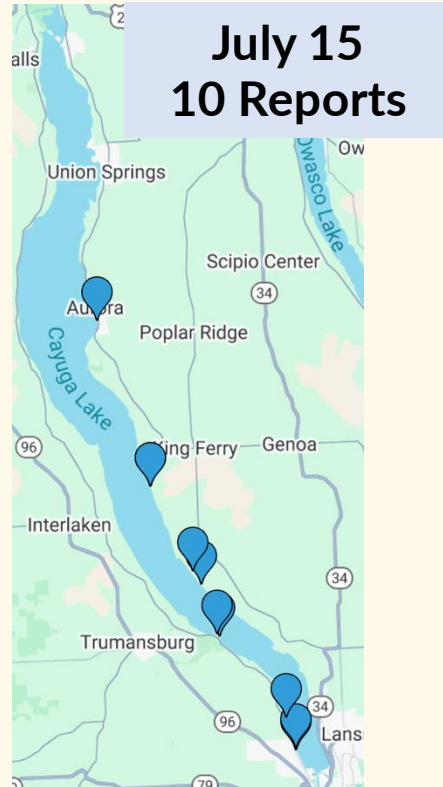
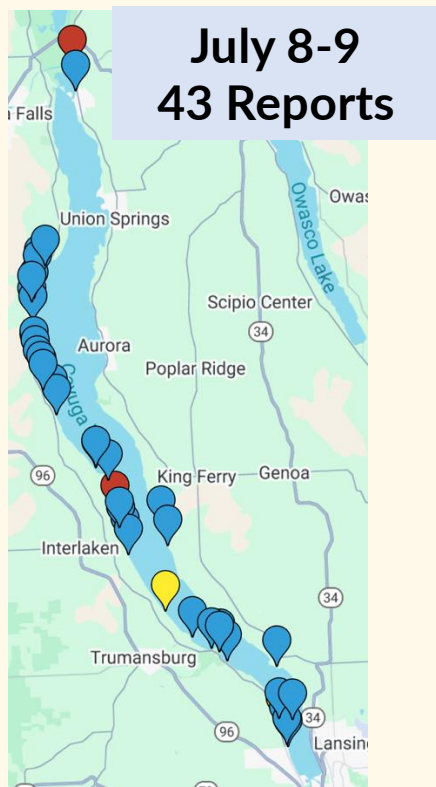
# 2024 Cayuga Lake Harmful Algal Bloom (HAB) Monitoring Season

2024  
Cayuga  
Lake HAB  
Reports



# 2025 Cayuga Lake Harmful Algal Bloom (HAB) Monitoring Season... So far!

## 3 Widespread Bloom Events Stand out



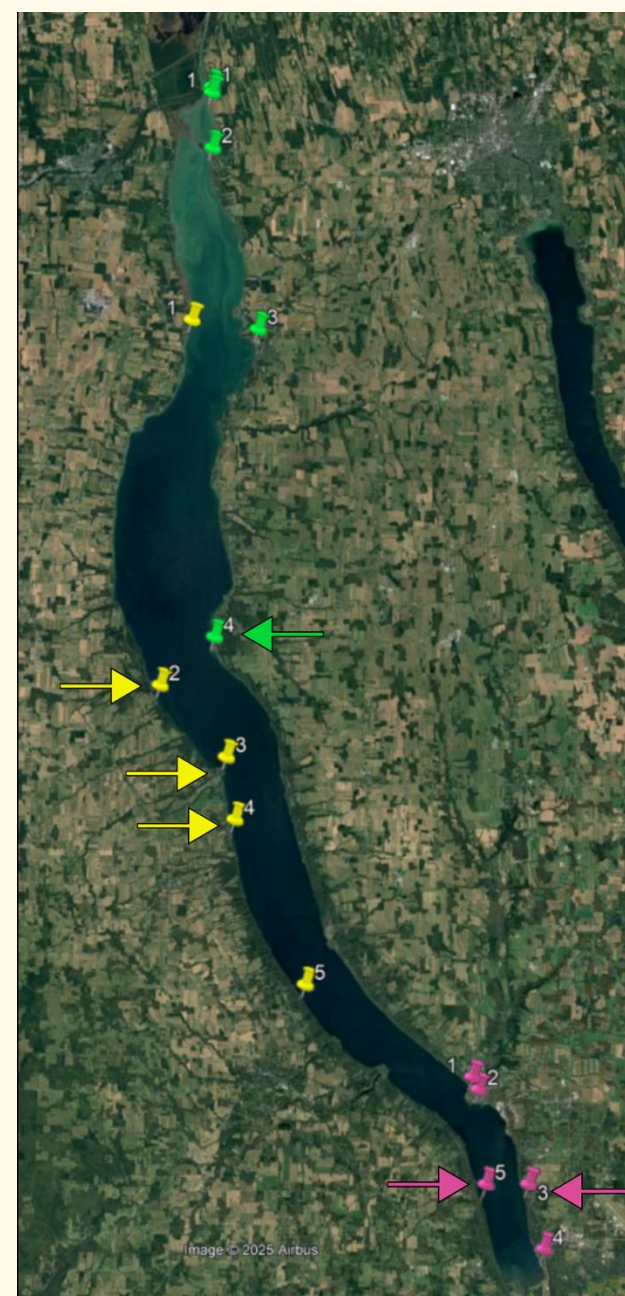


# Cayuga Lake HAB FAQ

*Why are you not sampling every HAB this year?*

- Resource strains
- Volunteer capacity
- Similar HAB characteristics from year to year
- Beyond what is done for most HAB monitoring programs in NYS

HAB monitoring will continue for as much of the Cayuga Lake shoreline as possible, HAB sampling will only take place at 14 priority locations identified by Cayuga, Tompkins, and Seneca County Health Departments.



## Cayuga County

1. Lockview Marina & Boat Transport **OR** Cayuga Marina Outfitters, Cayuga
2. Harris Park, Cayuga
3. Frontenac Park, Union Springs
4. Long Point State Park, Aurora

## Seneca County

1. Seneca Falls Water Treatment Plant, Seneca Falls
2. Thirsty Owl Wine Company, Ovid
3. Sheldrake Point, Ovid
4. O'Malleys & Cayuga Shoreline, Interlaken
5. Spotted Sandpiper, Trumansburg

## Tompkins County

1. Salt Point Preserve, Lansing
2. Lansing Harbor, Lansing
3. Bolton Point Intake, Ithaca
4. East Shore Park, Ithaca
5. Glenwood Apartments/Ithaca Yacht Club, Ithaca

# Cayuga Lake HAB FAQ

*I have a beach well/shoreline well – what do HABs mean for the safety of my drinking water?*

Per NYSDOH: “Never drink untreated surface water, bloom or no bloom”



**Department  
of Health**

Even if you have an in-home treatment system, use bottled water during a bloom.



## National Sanitation Foundation standards (NSF P477)

A combination of ozone, chlorine, carbon filtration and reverse osmosis may reduce some cyanobacteria and their toxins.

UV, chloramines, water softeners and boiling water may not reduce cyanotoxins.



# Cayuga Lake HAB FAQ

*I have a beach well/shoreline well – what do HABs mean for the safety of my drinking water?*

Testing your drinking water for microcystin is expensive and gives limited information about your risk of exposure. Instead:

- Learn how to ID a HAB
- Use (and maintain!) a water filtration system
- Maintain a back up water supply in the event of a bloom

# Cayuga Lake HAB FAQ

*The swimming area at Taughannock is closed due to HABs, but I don't see one right now - what gives?!*

## Process for beach closure/reopening:

1. HAB is spotted, reported, and beach is closed
2. Wait for bloom to dissipate (usually next day)
3. NYSP collect a sample (non-bloom water)
4. Sample is tested at CSI's lab for microcystin – takes a full day in the lab!
5. If sample tests below 4 ug/L, the beach can reopen. If not, NYSP must resample.

*Swimming areas may also be closed due to E.coli*

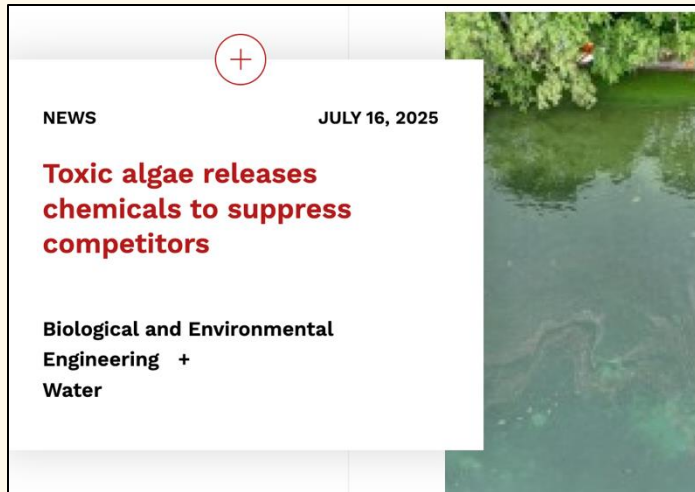


Kita and I at TFSP on a HAB-free day



# Cayuga Lake HAB FAQ

*What is being done about HABs?*



**Data Collection and Research**



**Nutrient Reduction  
Projects**

Sponsored  
by AM Anna  
Kelles and  
Senator  
Rachel May



**HABs Monitoring and  
Prevention Act**

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Q&A



*Dolly & Kita enjoying a hike by Cayuga Lake*



# Acknowledgements

Special thanks to Andy Yale!



Dedicated volunteers!

CSI Members

CSI Staff Past and Present



Partners



Local Governments

Business Members



INN AT TAUGHANNOCK FALLS

FARMER GROUP

***gimme!***

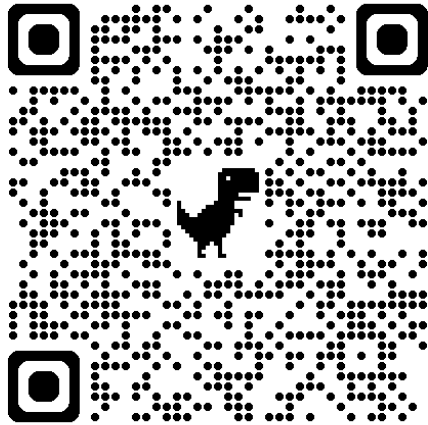


FINGERLAKES  
Wealth Management



# Stay in touch!

Join CSI's email list for monthly updates



 **Community Science Institute**  
Partnering with Communities to Protect Water



This striking photo was captured by one of our dedicated volunteers in Varick, on the west side of Cayuga Lake. It showcases a sediment plume flowing from the mouth of a creek—officially labeled by FEMA as "Unnamed Tributary #3 to Cayuga Lake in the Town of Varick." A sediment plume is a visible cloud of suspended particles spreading from a disturbance, in this case, caused by heavy rainfall and melting snow and ice from the previous day's weather. This natural phenomenon is a great reminder of how land and water are closely connected—highlighting the importance of protecting our watersheds from excess runoff!

Photo: Thomas Björkman, Synoptic Stream Monitoring Volunteer  
02/27/25 - Varick, NY

February 2025 Monthly Update

Follow us on social media



@communityscienceinstitute

Set up a meeting with me

[gshidemantle@communityscience.org](mailto:gshidemantle@communityscience.org)

(607) 257-6606

[www.communityscience.org](http://www.communityscience.org)



# Q&A



Kita and Dolly say: “Thanks for caring about Cayuga Lake!”