Community Science Institute: Empowering Communities Through Water Science

Ithaca Rotary Club
9/24/25

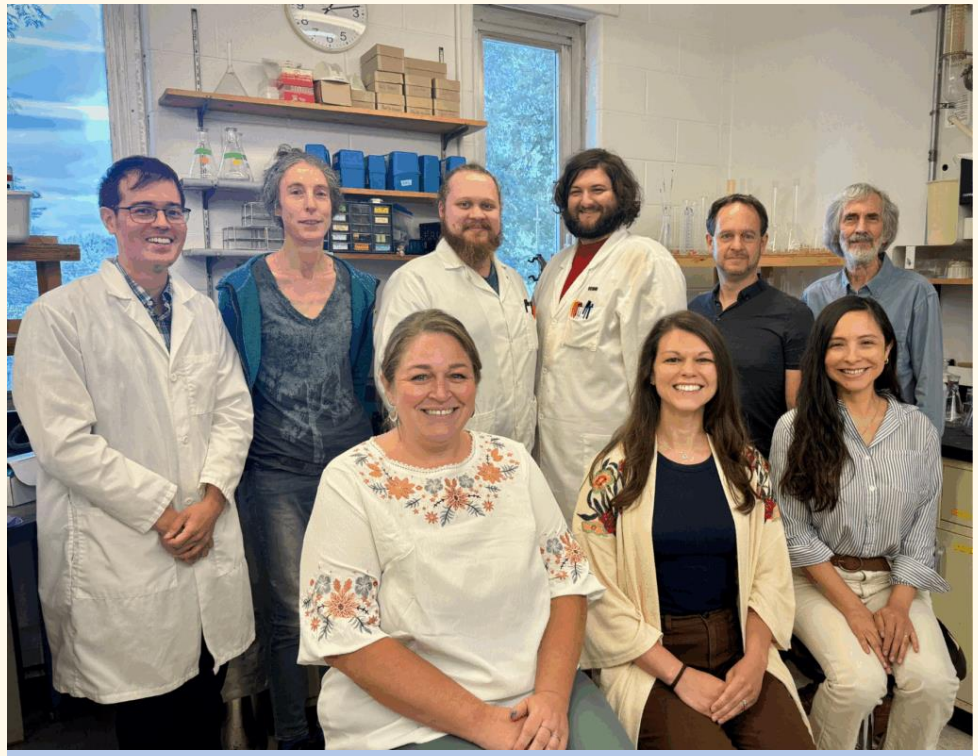
Grascen Shidemantle, PhD
Executive Director
Community Science Institute

Community Science Institute
Partnering with Communities to Protect Water

CSI volunteers hard at work

Agenda

- Intro: Community Science Institute
- Volunteer Monitoring & Water Quality Databases
- Fee-for-Service Water Testing
- Outreach and Education
- Acknowledgements + Q&A



CSI Staff

Agenda

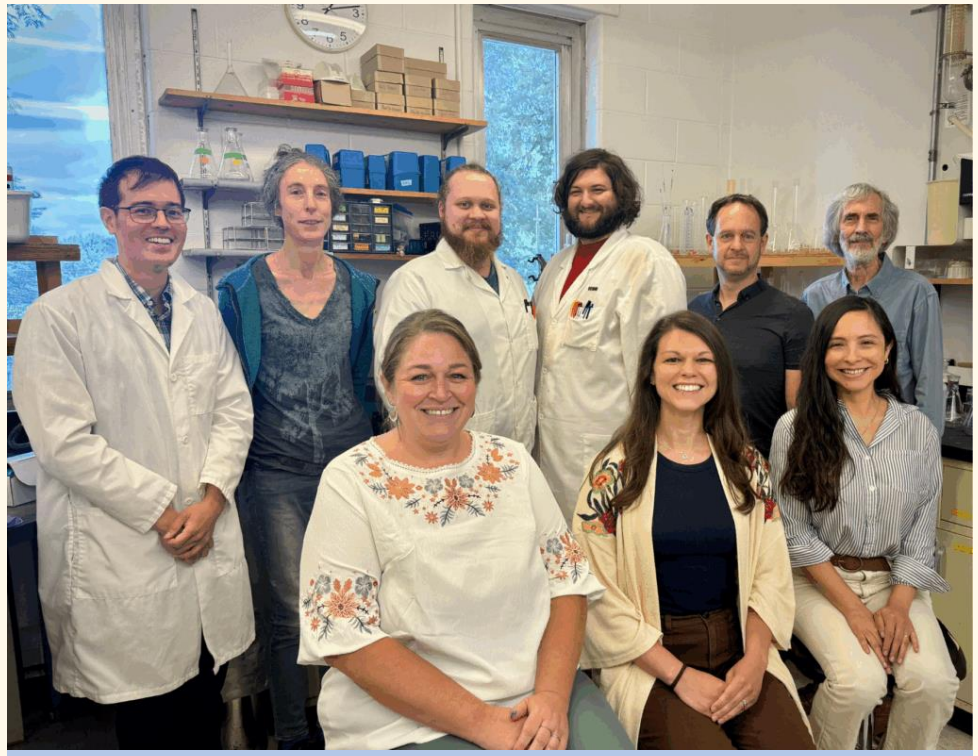
Intro: Community Science Institute

Volunteer Monitoring & Water Quality Databases

Fee-for-Service Water Testing

Outreach and Education

Acknowledgements + Q&A



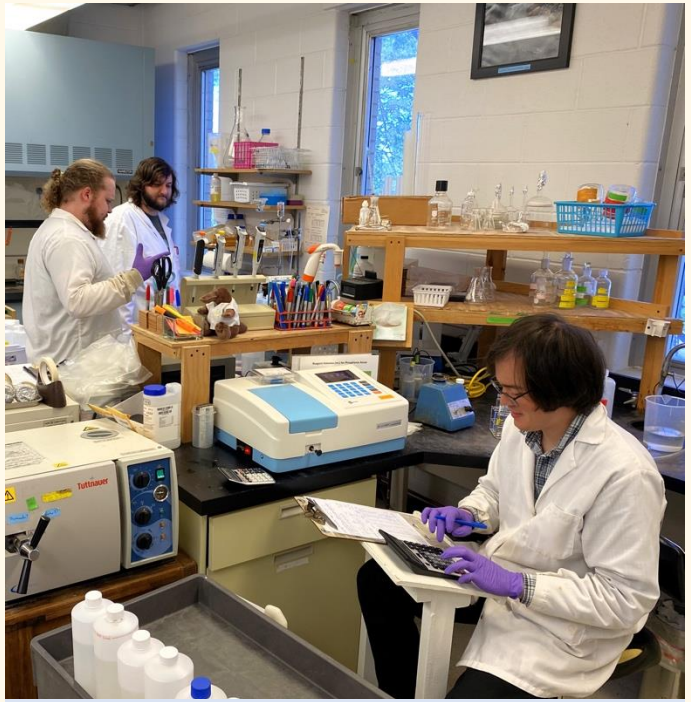
CSI Staff

Community Science Institute

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

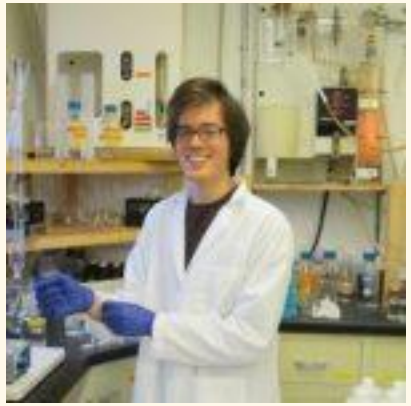


Fee-for-Service Water Testing

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.

Community Science Institute

Grascen Shidemantle
Executive Director



Noah Mark
Laboratory Director

Adrianna Hirtler
Biomonitoring Coordinator

Katia Appel
Office Administrator

Alyssa Johnson
Outreach and
Programs Coordinator

Seth Bingham
Water Quality Scientist

Dan Pascucci
Water Quality Scientist

Rama Hoetzlein
Database Developer

Bill George
Data Entry Specialist

Agenda

Intro: Community Science Institute

Volunteer Monitoring & Water Quality Databases

Fee-for-Service Water Testing

Outreach and Education

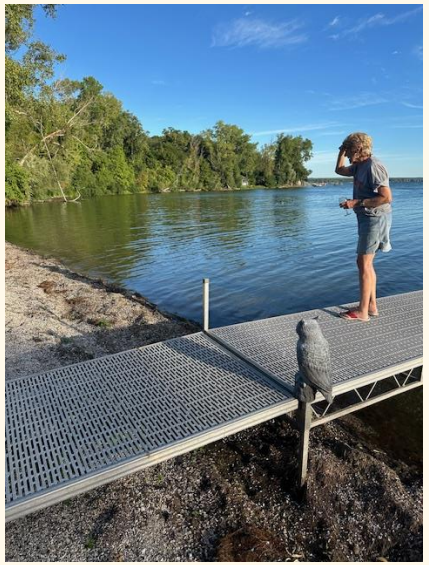
Acknowledgements + Q&A

CSI Volunteers

CSI's Volunteer Water Monitoring Partnerships

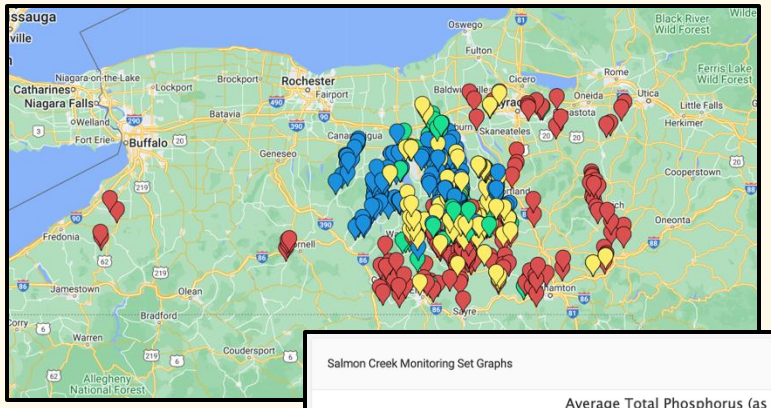
Synoptic Stream and Lake Monitoring

Biomonitoring

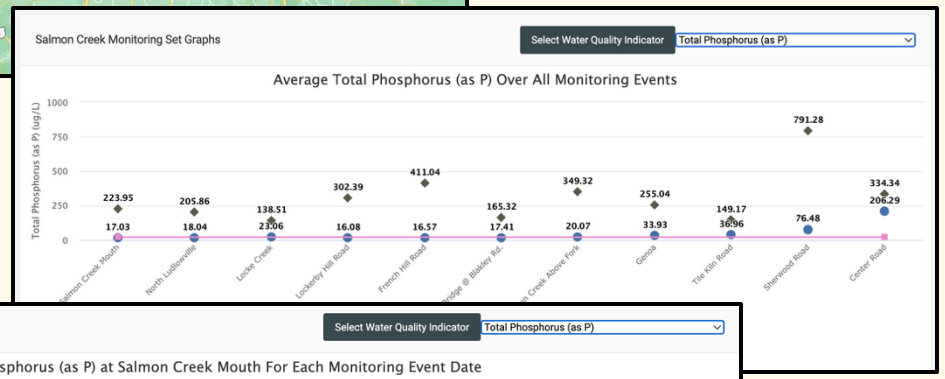


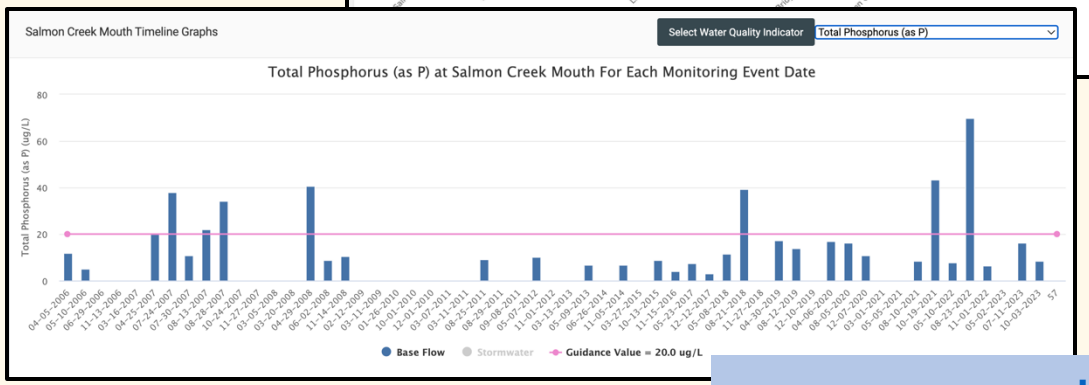
Cayuga Lake Harmful Algal Bloom (HAB) Monitoring

CSI's Water Quality Database

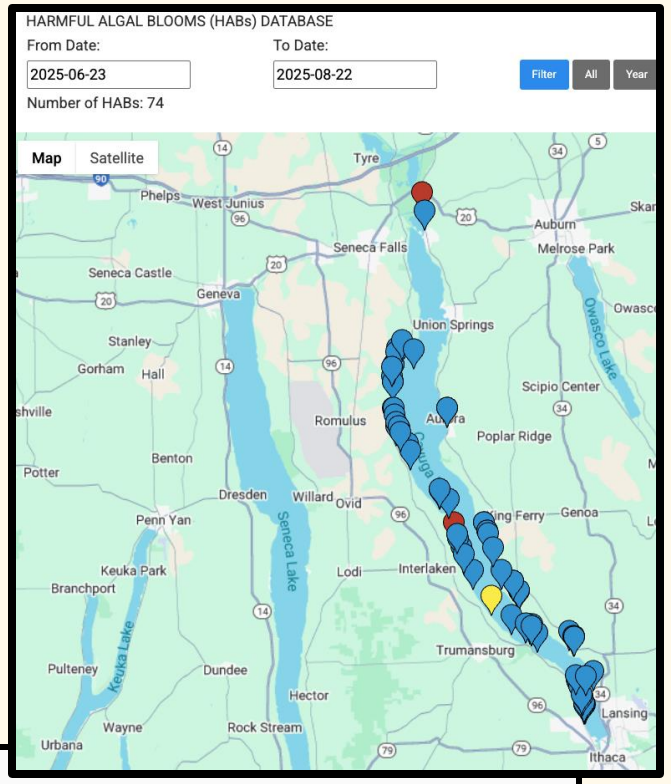


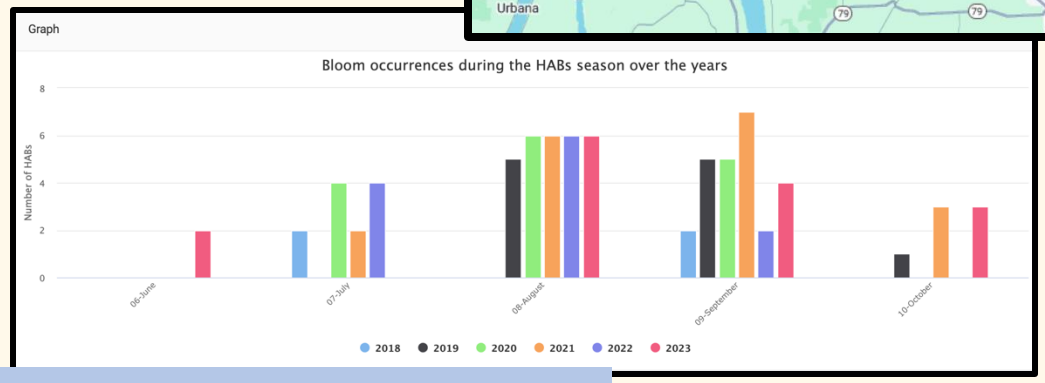
Stream and Lake Chemistry





Harmful Algal Blooms





www.database.communityscience.org

CSI Data Makes a Difference

Removal of the southern end of Cayuga Lake from the 303(d) list for pathogenic bacteria

Trumansburg Wastewater Plant upgrades

Assembly Bill A5150A

2025-2026 Legislative Session

Enacts the "harmful algal bloom monitoring and prevention act"

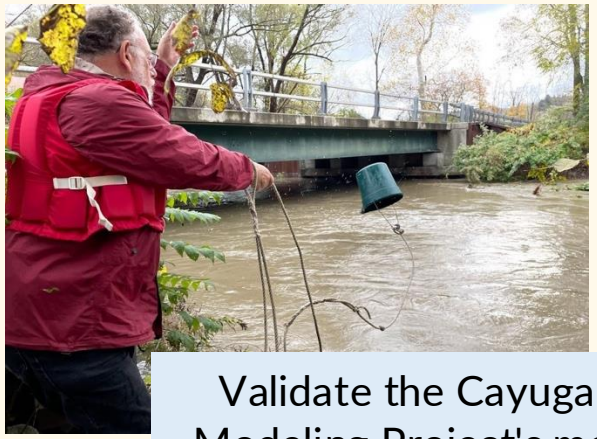
DOWNLOAD BILL TEXT PDF

SHARE THIS BILL

SPONSORED BY

KELLES

Evidence for legislation to address Harmful Algal Blooms



Validate the Cayuga Lake Modeling Project's model of Fall Creek phosphorus loading

Peer-reviewed research

Using Citizen Based Science to Provide Insights on Toxic Cyanobacteria Blooms in a New York Lake

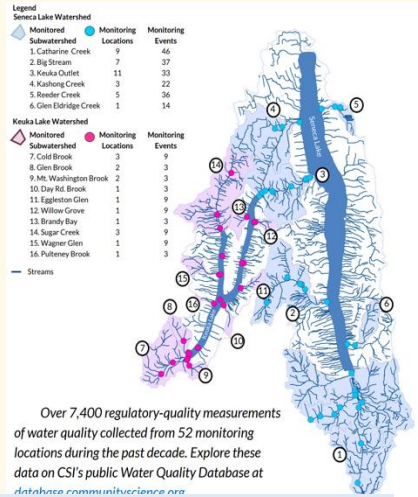
Howarth, R., Swaney, D., Smith, C., Marino, R., Figueroa, A., & Penningroth, S. (2023). Using Citizen Based Science to Provide Insights on Toxic Cyanobacteria BLooms in a New York Lake. Abstract of presentation at the meeting of the *Association of the Sciences of Limnology and Oceanography (ASLO)* "Resilience and Recovery in Aquatic Ecosystems" – Mallorca, Spain; June 4-9, 2023

Community-Based Risk Assessment of Water Contamination from High-Volume Horizontal Hydraulic Fracturing

Penningroth, S. M., Yarrow, M. M., Figueroa, A. X., Bowen, R. J., & Delgado, S. (2013). Community-Based Risk Assessment of Water Contamination from High-Volume Horizontal Hydraulic Fracturing. NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy, 23(1), 137–166. https://doi.org/10.2190/NS.23.1.i

Long-Term Study of Soluble Reactive Phosphorus Concentration in Fall Creek and Comparison to Northeastern Tributaries of Cayuga Lake, NY: Implications for Watershed Monitoring and Management

O'Leary, N.; Johnston, R.; Gardner, E.L.; Penningroth, S.M.; Bouldin, D.R. Long-Term Study of Soluble Reactive Phosphorus Concentration in Fall Creek and Comparison to Northeastern Tributaries of Cayuga Lake, NY: Implications for Watershed Monitoring and Management. *Water* 2019, *11*, 2075. https://doi.org/10.3390/w11102075



Seneca-Keuka 9E Plan

Agenda

Intro: Community Science Institute

Volunteer Monitoring & Water Quality Databases

Fee-for-Service Water Testing

Outreach and Education

Acknowledgements + Q&A

CSI's Lab

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

Resources

CSI web page “Drinking Water Resources for the General Public”

Handouts on common questions such as how to shock a well, iron and manganese bacteria, and microcystin in beach wells

Referrals for local water treatment specialists

Sample bottles available for pick up at:

- CSI’s Lab by the Ithaca Airport
- Greenstar on Cascadilla Street
- ShurSave in Trumansburg

Drinking Water Resources for the General Public

Explore answers to common questions about private water systems, well maintenance, and safe drinking water practices. Whether you’re troubleshooting a problem or simply staying informed, find clear, reliable information all in one place.

- Contact us at (607) 257-6606 or by email: info@communityscience.org with any questions or concerns.
- Our business hours are Monday – Friday, 9 am – 5pm.
- Samples are accepted Monday – Thursday, 9 am – 3 pm.

General Groundwater Well Information:

TESTING YOUR WATER AT CSI’S CERTIFIED LAB

Community Science Institute

Volunteer Monitoring Outreach and Education
Certified Water Testing (NYSDOH-ELAP #11790)

Testing Your Water at CSI’s Certified Lab

- CSI’s Business Hours: Monday – Friday, 9 am – 5 pm
- Sample Drop-off Hours: Monday – Thursday, 9 am – 3 pm
  - *Please note: Samples dropped off outside of these times may or may not be accepted, at the discretion of CSI staff. If you are unable to drop off samples during these hours, please call 607-257-6606 to make special arrangements.*
  - *Bacteriological samples cannot be accepted on Fridays.*
- The Community Science Institute is certified by the New York State Department of Health-Environmental Laboratory Approval Program (NYSDOH-ELAP) under National Environmental Laboratory Accreditation Conference (NELAC) guidelines. Our identification numbers are ELAP ID# 11790 and EPA ID# NY01518.

How to Get Your Water Tested

1. Pick up a sampling kit from the CSI Lab (85 Brown Road, second floor, Room #283)

SHOCK DISINFECTION OF WATER SUPPLY SYSTEMS

Tompkins County Health Department
Your Partner for a Healthier Community

Frank Kruppa
Public Health Director
55 Brown Road
Ithaca, NY 14850-1247

ENVIRONMENTAL HEALTH DIVISION
www.tompkinscountyny.gov/health/eh

Ph: (607) 274-6688
Fx: (607) 274-6695

Shock Disinfection of Water Supply Systems

When a water supply has been exposed to bacterial contamination, it is advisable to disinfect the system using a commercial chlorine compound such as chlorine bleach. Disinfection should occur after: construction of a new water supply, repairs are made to an existing water supply, a positive coliform or E. coli test, or any time the well cap or lid has been removed.

The disinfection process outlined below is intended to eliminate the effects of previous contamination, but will not continue to disinfect or render safe a water supply which is continuously or intermittently contaminated. Therefore, before disinfecting the water supply system, all sources of pollution should be eliminated and proper repairs should be made. Contact a water system specialist or the Tompkins County Health Department (TCHD) for advice.

The most convenient source of chlorine is ordinary household bleach. Chlorine bleach contains about 5.25% chlorine (sodium hypochlorite) and is available at most grocery stores. Note that "Ultra" Chlorine Bleach products contain 6% chlorine. If possible, use NSF approved chlorine, as other types have

AFTER YOU’VE SHOCKED YOUR WELL

Community Science Institute

NYSDOH ELAP #11790 www.CommunityScience.org EPA Lab Code NY01518

After shocking your well, re-test for bacteria to be sure that all of the bacteria have been eliminated.

BEFORE re-testing for bacteria - the chlorine bleach must be flushed out of the well and plumbing. The chlorine will eventually be removed by running the water in your home.

- It normally takes **2 full weeks** of using the water daily in the home to remove all of the chlorine.
- When you can no longer smell chlorine in the water, the system should be flushed for **an additional** 4 to 5 days.

When your water is ready to re-test for bacteria, **please collect 2 samples.**

- **First,** you will need to sanitize the faucet to remove any bacteria that may be living inside the faucet:

Water Testing Assistance Fund

Making reliable drinking water testing affordable for everyone

50% discount on CSI's in-house drinking water tests for low-income households

Rotary Club of Ithaca

This fund is made possible thanks to a Community Grant from the Ithaca Rotary Club!

Agenda

Intro: Community Science Institute

Volunteer Monitoring & Water Quality Databases

Fee-for-Service Water Testing

Outreach and Education

Acknowledgements + Q&A

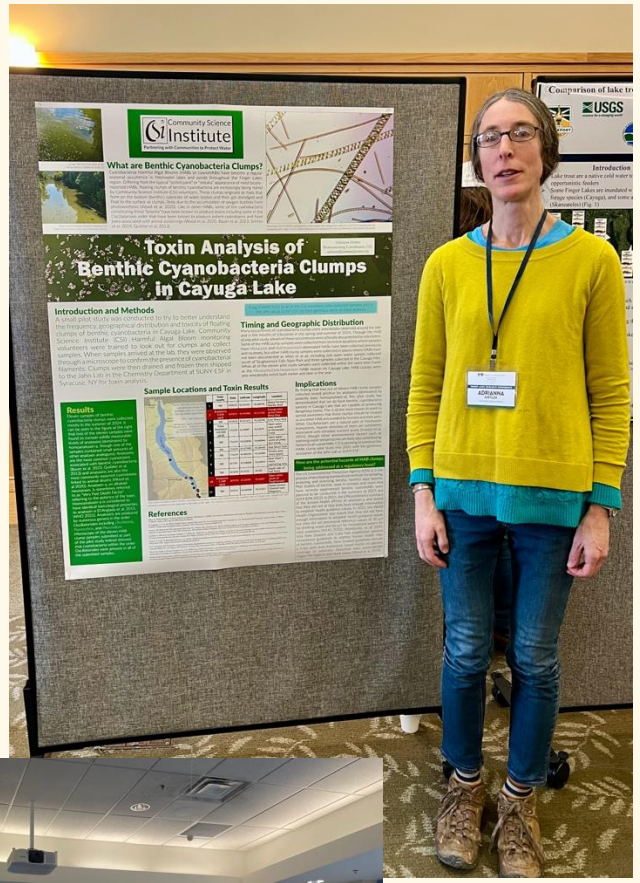
Journey of Water Participants

Journey of Water Summer Youth Education Series

The JOURNEY of Water
Community Science Institute
Partnering with Communities to Protect Water

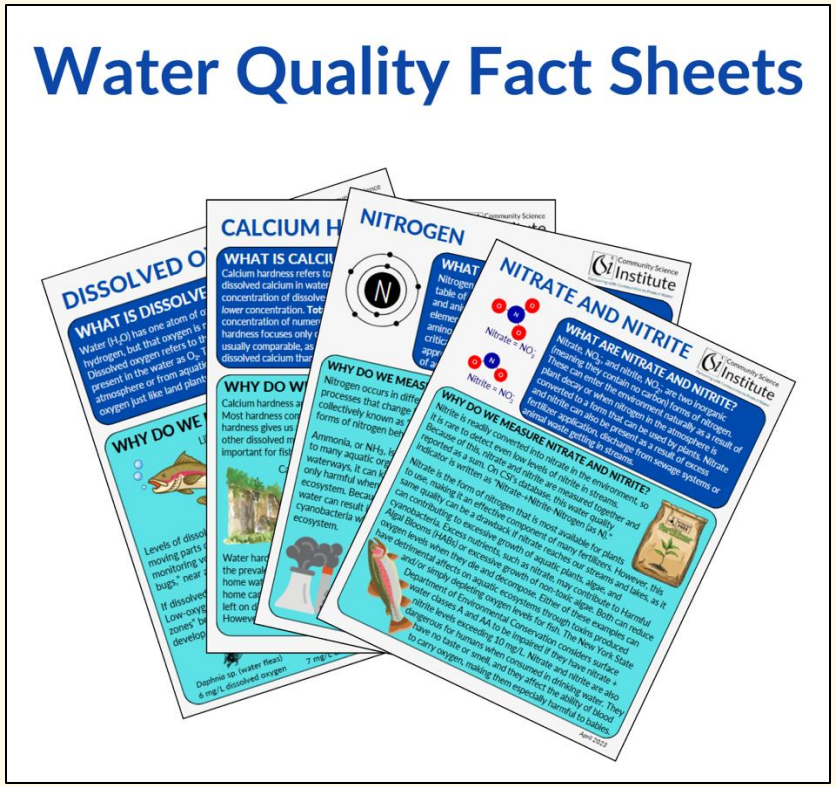
PARK FOUNDATION

Public Events and Presentations



Educational Materials

Annual Water Bulletin Newsletters



Online Learning Materials

Monthly Email Updates

Agenda

- Intro: Community Science Institute
- Volunteer Monitoring & Water Quality Databases
- Fee-for-Service Water Testing
- Outreach and Education
- **Acknowledgements + Q&A**

CSI Volunteers

Acknowledgements

Dedicated volunteers!

CSI Members

CSI Staff Past and Present

Partners

Local Governments

Business Members

INN AT TAUGHANNOCK FALLS

FARMER GROUP

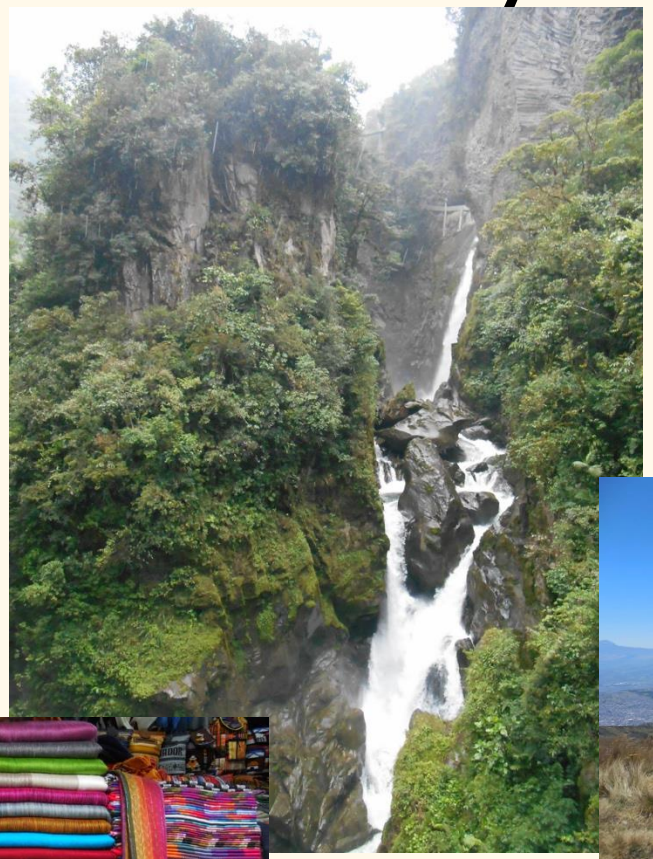
gimme!

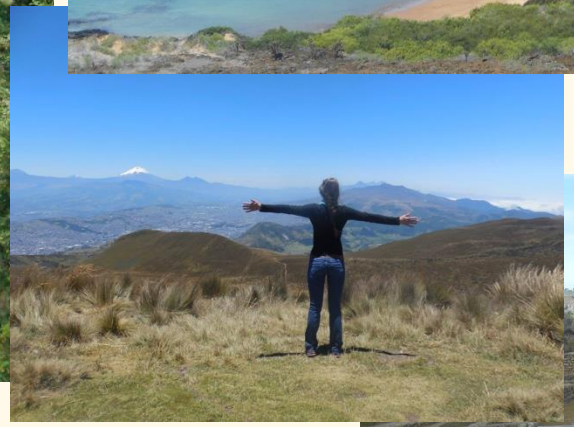
FINGERLAKES Wealth Management

A personal thanks to Rotary

RYE 2013-2014
District 7280 (Slippery Rock, PA) →
District 4400 (Quito, Ecuador)

A personal thanks to Rotary





A personal thanks to Rotary

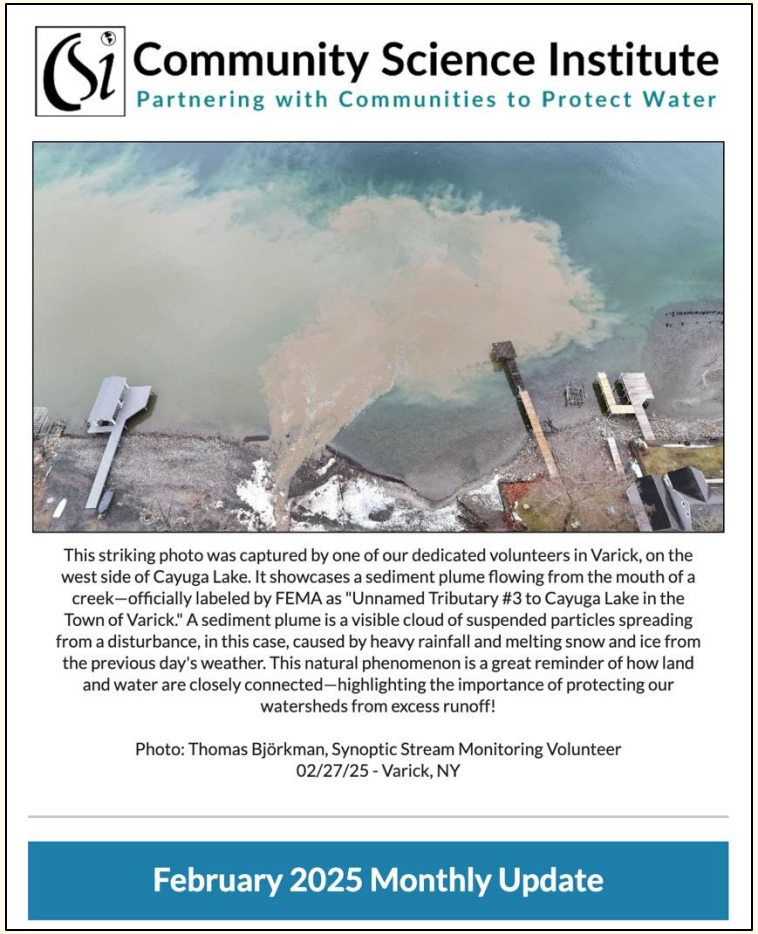
2013

2023

2024

Stay in touch!

Join CSI's email list for monthly updates



Follow us on social media

@communityscienceinstitute

Set up a meeting with me

gshidemantle@communityscience.org

(607) 257-6606

www.communityscience.org

Q&A

Kita and Dolly enjoying views of Cayuga Lake