



2020 Annual Report

Presented at the May Member Meeting

May 13, 2021

Outline

- **Introduction/Overview**
- **Acknowledgments**
- **2020 Annual Report – A Year of Partnerships & Progress**
- **Highlighted Projects**
- **Highlighted Research Initiatives**
- **A Look Ahead**

History of the Alliance

- Evolved from the Chautauqua Lake Management Commission (CLMC) in late 2014
- Established for the benefit of all lake and watershed stakeholders
- Our Mission:

The Chautauqua Lake & Watershed Management Alliance, working in **collaboration** with lake and watershed-related organizations, municipalities and other stakeholders, will **promote** and **facilitate implementation** of recommendations from the Chautauqua Lake Watershed Management Plan and the Chautauqua Lake Macrophyte Management Strategy by **prioritizing projects, securing funding and allocating resources.**

Our Members (2020-2021)

- Village of Bemus Point
- Village of Celoron
- Village of Lakewood
- Village of Mayville
- Jamestown Board of Public Utilities
- Chautauqua Watershed Conservancy
- Chautauqua Lake Association
- Chautauqua Lake Partnership
- Audubon Community Nature Center
- Roger Tory Peterson Institute of Natural History
- Chautauqua Lake Fishing Association
- Arnold Holmberg Foundation
- North Chautauqua Lake Sewer District
- Town of Busti
- Town of Chautauqua
- Town of Ellery
- Town of Ellicott
- Town of North Harmony
- Chautauqua County Visitors Bureau
- Chautauqua-Cattaraugus Board of Realtors
- The Lenna Foundation
- Chautauqua Institution
- County of Chautauqua
- South and Center Chautauqua Lake Sewer District

Our Board of Directors (2020-2021)

- **Pierre Chagnon** – Chair (County of Chautauqua)
- **Ted McCague** – Vice Chair (Village of Lakewood)
- **Mike Jabot** – Secretary (Chautauqua Watershed Conservancy)
- **Jim Andrews** – Treasurer (Town of Busti)
- **Mike Latone** (Chautauqua Lake Partnership)
- **Dave Shepherd** (Arnold Holmberg Foundation)
- **Paul (P.J.) Wendel, Jr.** (County of Chautauqua)
- **Bruce Erickson** (Chautauqua Lake Association)
- **Rob Yates** (Town of North Harmony)

Other Special Recognitions

- Members and founders of the Chautauqua Lake Management Commission (CLMC)
- County of Chautauqua
- Ralph C. Sheldon Foundation
- Chautauqua Region Community Foundation (CRCF)
- The Lenna Foundation
- Arnold Holmberg Foundation
- Gebbie Foundation
- Committee Volunteers
- Individual Contributors
- Our Founding & Current Members

Chautauqua Lake – Our Shared Resource

- **Economic Driver**

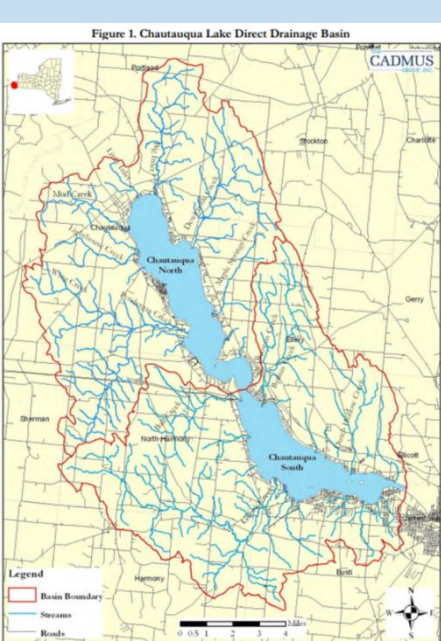
- Power Boating
- Kayaking
- Swimming
- Fishing
- Drinking water source
- County Property Tax Base

- **Characteristics**

- ~13K ac lake | ~102K ac watershed
- North & South Basin (shallow, eutrophic)

- **Ecological Resource**

- 2nd best Musky fishery in NY (Wide Open Spaces)
- 83rd best bass fishing lake in the country (Bassmaster Magazine)
- Improving walleye fishery (NYS DEC)
- Supports rare, threatened, and endangered species



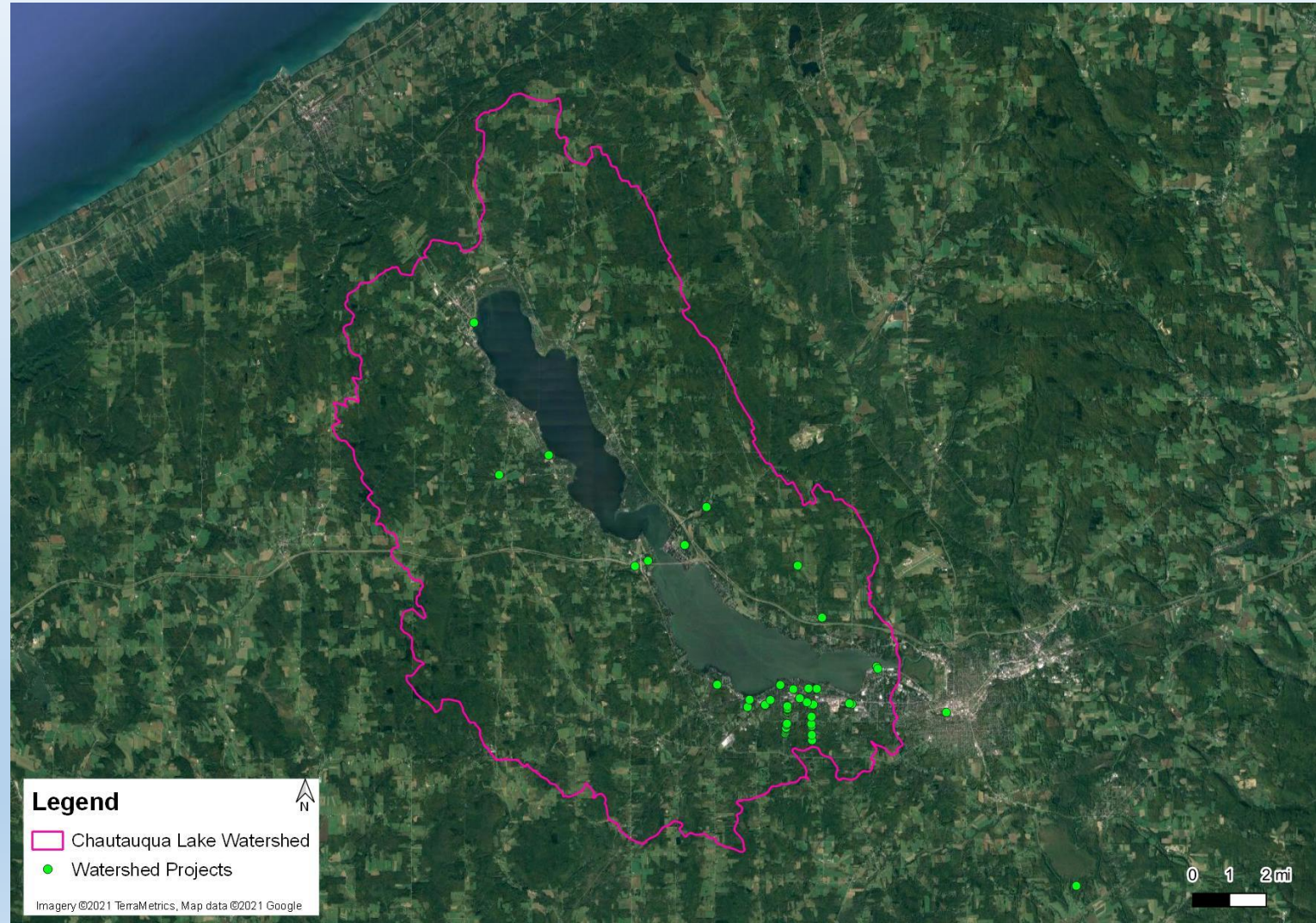
Our Challenges & Opportunities

- Nuisance macrophyte (plant) growth (native and invasive)
- Harmful Algal Blooms (HABs)
- Excess sediment and nutrient loading from the watershed
- Internal nutrient loading (Nitrogen, Phosphorus)
- Flooding
- Other pollutants (e.g., salt)
- Property loss (erosion)
- Loss of habitat/ biodiversity
- Climate Change
- Drinking water protection (Source Water)



Our Shared Focus on Our Shared Resource

- *Example Lake Projects*
 - Macrophyte harvesting
 - Shoreline, Near-shore, and debris clean-up
 - Chemical macrophyte management
 - Invasive species programs/removal
- *Example Watershed Projects*
 - Stream stabilization
 - Municipal storm water management
 - Lake access/amenities
 - Riparian Buffers
 - Wastewater (septic/sewers)
- *Example Research/Monitoring*
 - Nutrient monitoring
 - HAB monitoring/reporting
 - Fisheries assessment
 - Lake monitoring and modeling
 - Macrophyte and lake condition surveys
 - Public research panels

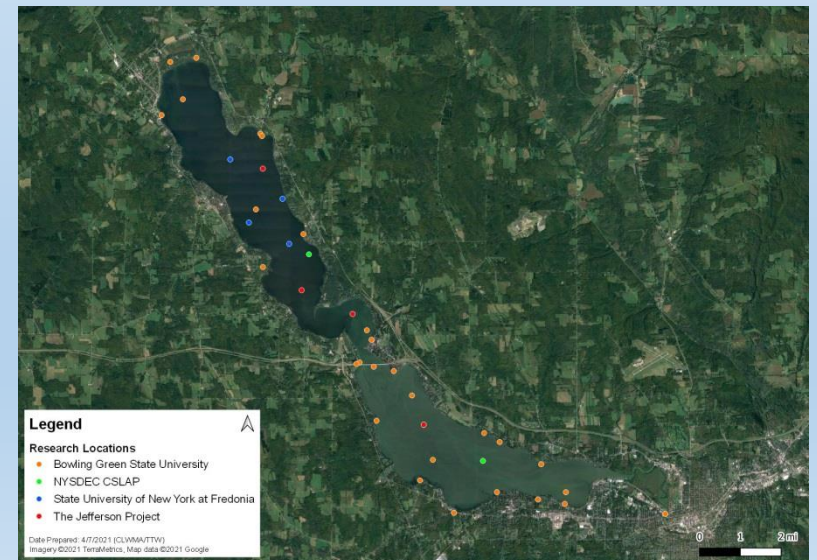


Power of Partnerships

Alliance-Partnered Projects
ca. 2018 – Present*
(*Based on implementation year)

65 total projects/programs
Valued at ~\$6.96 Million

Blend of Lake, Watershed, and
Research/Monitoring



2020: A Year of Partnerships & Progress

- **15 locally-funded, Member-led projects,**
- **Involving 10 different Alliance Members,**
- **With a total value of \$605,000** in consolidated grant funding from The Lenna Foundation, the Chautauqua Region Community Foundation, the Ralph C. Sheldon Foundation, and the Gebbie Foundation
 - **Lake:** Mechanical lake maintenance (CLA operations; Town of Chautauqua Mobitracs); Chemical lake maintenance (CLP, Busti, Lakewood, Ellery, and Bemus Point); Aquatic Invasive Species Programs (RTPI & Audubon)
 - **Watershed:** CWC 'Starve the Algae, Save the Lake' program; Lakewood Grandview Storm Water Project; RTPI Chadakoin River Erosion Study
 - **Research/Monitoring:** Nutrient sensors and weed survey (CLP)



2020 Lake Maintenance - Mechanical

- Chautauqua Lake Association, Town of Chautauqua, and municipalities (highway/public works)
- 2020 Highlights
 - Joint operations
 - GPS
 - Enhanced reporting of completed & planned work
 - Lake-wide service

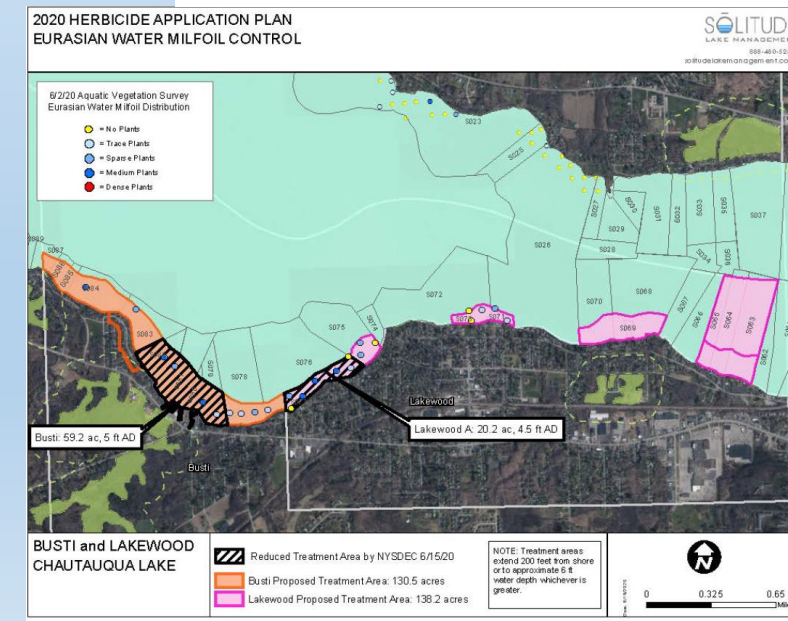
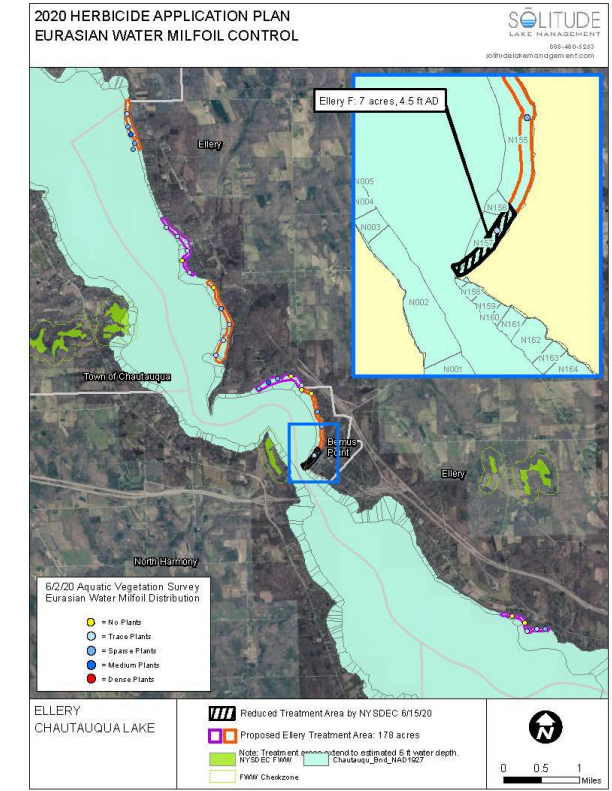


Source: CLA



2020 Lake Maintenance - Chemical

- **ProcellaCOR EC under NYSDEC permits**
 - USEPA “reduced risk status”
 - Fewer water use restrictions than other herbicides used on Chautauqua Lake
- **Target Species: Eurasian Watermilfoil**
- **Treatment Date: 6/29/2020**
- **Acres Treated: ~86.4**
 - Town of Busti: 59.2 ac
 - Village of Lakewood: 20.2 ac
 - Village of Bemus Point: 7 ac
 - In coordination with Chautauqua Lake Partnership
- **3rd Party Monitoring by Princeton Hydro**



Water Chestnut– 2020 Early Detection/Rapid Response

2019-2020 iMap Invasive Species Reports: Water Chestnut
8/11/2020



- Roger Tory Peterson Institute of Natural History & Audubon Community Nature Center
- Location/removal >100 plants in 2020
- Volunteer Task Force
- Complements ongoing prevention-focused efforts of CLA, NYSDEC, and WNYPRISM



Town of Busti Swale Stormwater Retrofits (NYSDEC WQIP)

- Retrofit approximately 4,600 linear feet of swales within the Town of Busti and Village of Lakewood
- Actiguard-R phosphorus binding media
- Rock and vegetative stabilization
- Objectives:
 - Reduce sediment and nutrient loading
 - Flood reduction
- Project is ~80% complete (anticipated completion Spring/Summer 2021)

State funding provided by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation (NYSDEC). The remaining share is provided as local matching funds by the Town of Busti (cash and in-kind), County of Chautauqua from reallocated Chautauqua Lake Management Commission (CLMC) capital funds, and Alliance from the Alliance/Foundation Match Fund.



Village of Lakewood Chautauqua Avenue Green Street Retrofit Project (NYSEFC GIGP)

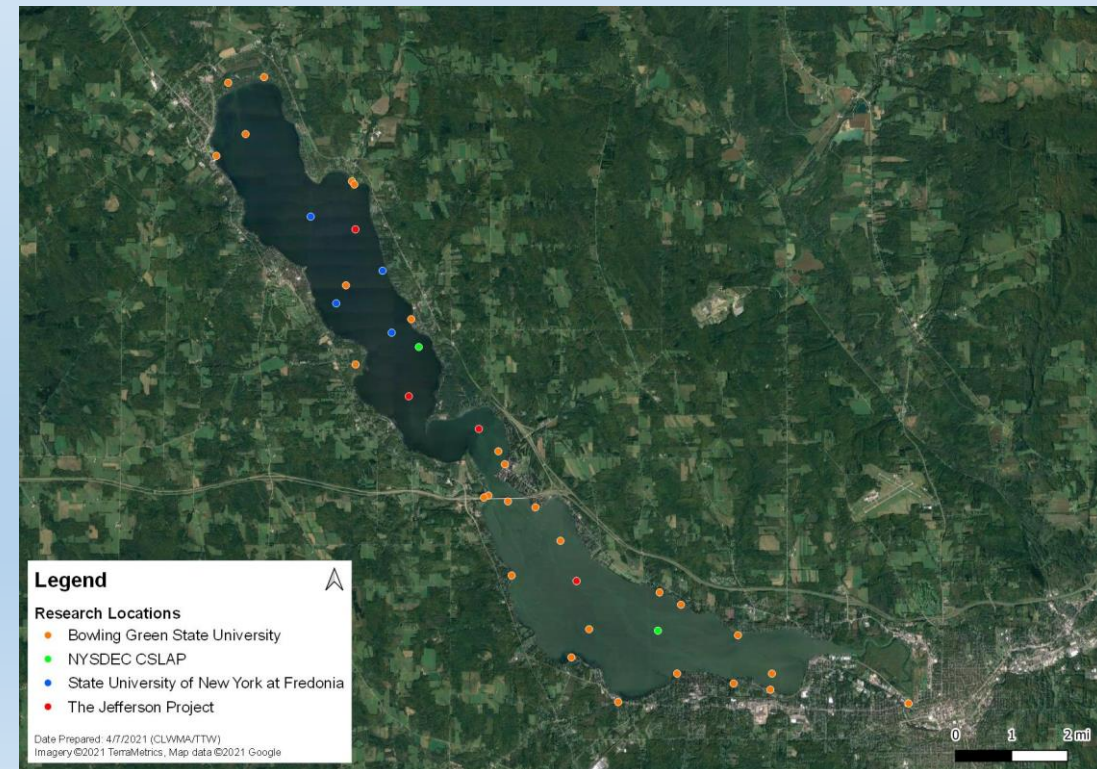
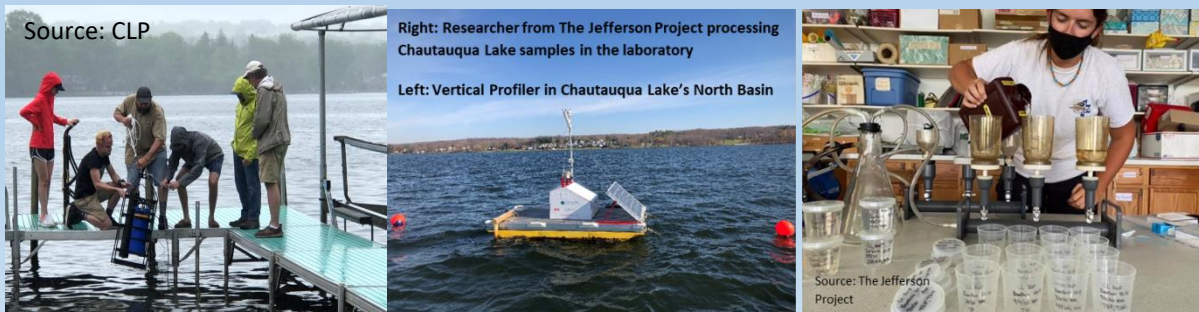
- Stormwater Retrofit along Chautauqua Avenue in the Village of Lakewood
- Permeable interlocking concrete pavers in intersections and curb areas
- Stormwater street trees linked with a continuous tree trench
- Objectives:
 - Reduce sediment and nutrient loading
 - Promote infiltration and biofiltration of stormwater
 - ~34,000 gallons for 1-inch design storm
 - Improved aesthetics
 - Increase public awareness about urban stormwater management
- Project is ~20% complete
 - Anticipated completion Summer 2021

State share of funding for the project is provided by NYSEFC GIGP grant 1597. Local matching funds are provided by the Village of Lakewood (in-kind construction services), County of Chautauqua from reallocated Chautauqua Lake Management Commission (CLMC) capital funds, and Alliance from the Alliance/Foundation Match Fund.



Data & Research – The Power of Unification, Communication & Visualization

- Chautauqua Lake Aquatic Data (CLAD) Mapping Program
- GPS Program
- NYHABS, CSLAP, and HABITATS programs
- Macrophyte surveys
- Tributary and in-lake nutrient monitoring (Bowling Green State Univ. & CLP)
- The Jefferson Project – lake monitoring and modeling
- Research by SUNY Fredonia and SUNY Oneonta

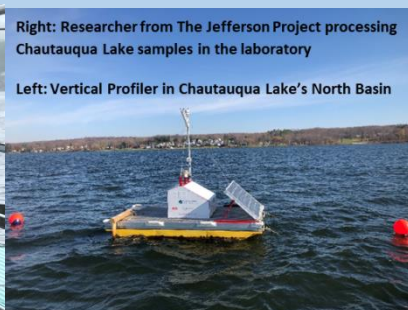


Data & Research – The Power of Unification, Communication & Visualization

- Data → Information → Decisions
- Alignment of needs, resources, and timing for maximum benefit
- Assessment of effort and results
- Historical perspective
- Public updates – Chautauqua Lake Water Quality Research Panel
- Coordination with Alliance Committees, Staff, and Board



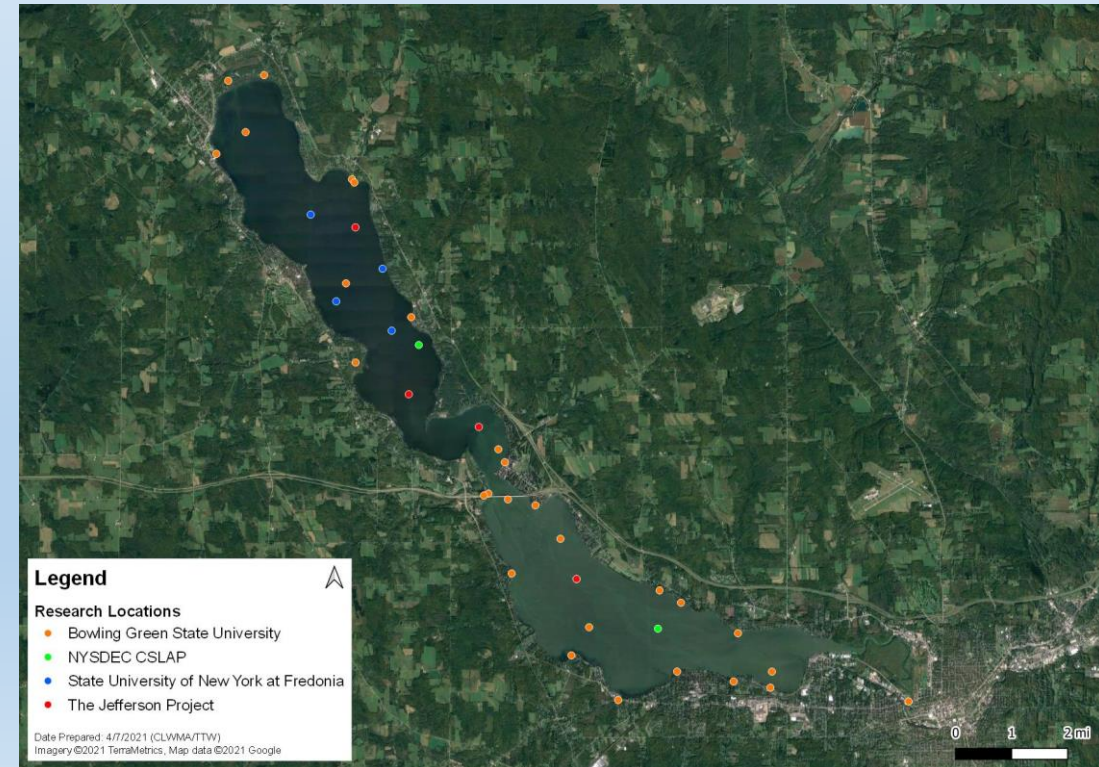
Source: CLP



Right: Researcher from The Jefferson Project processing Chautauqua Lake samples in the laboratory
Left: Vertical Profiler in Chautauqua Lake's North Basin



Source: The Jefferson Project



A Look Ahead to 2021 and Beyond

- 2021: At least **12 new Member-led Lake and Watershed Projects** totaling **\$690,000**
- **2021 NYS Consolidated Funding Application**
- **2021-2022 Alliance Consolidated Local Grant Program**



A Look Ahead to 2021 and Beyond

- **Balanced approach** for the lake & its users in **both the short-term & long-term**
- **Leverage outside resources** and improve positioning for NYS CFA grants
- **Unity of Effort** strategy employing Member **core competencies**, avoiding duplication through collaboration, and delivering a **more effective and responsive maintenance capacity** for the entire lake
- Maintain flexibility for **adaptive lake maintenance** as 2021 conditions emerge

A Look Ahead to 2021 and Beyond

- **Strategic expansion of data collection & research** capacity to support better HAB understanding and scenario modeling for decision making moving forward.
- **Watershed projects & invasive species early detection teams** addressing storm water flooding, sediment/nutrient loading, and new invasive threats
- **Community education programs** to continue to engage and empower homeowners and the general public to protect Chautauqua Lake

A Look Ahead to 2021 and Beyond



CLA's Watercraft Steward Program Sees An Increase In Regional Lake Activity in 2020

📅 April 14, 2021

Lakewood, NY — The Chautauque Lake Association's Watercraft Steward AIS Spread Prevention Program Reports show that there was a significant increase across the board in total surveys, inter...

Source: Chautauque Lake Association (<https://chautauqualakeassociation.org/>)



Source: Alliance



Source: T. West



Source: Alliance

Thank You!

- **Randall Perry, Alliance Executive Director**
 - rperry@chautauquaalliance.org
- **Taylor West, Alliance Project Manager**
 - twest@chautauquaalliance.org
- **Website:** <http://www.chautauquaalliance.org/>
 - Full Version of 2020 Annual Report and copy of this presentation will be available soon.

