

# **2021 Annual Report**

Presented at the May Member Meeting
The Lawson Center, Bemus Point, NY & via Zoom
May 12, 2022

# **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.

## Alliance Members (2021-2022)



- 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 Districts

# Alliance Board of Directors (May 2021-May 2022)



- 1. Bruce Erickson Chair (Chautauqua Lake Association)
- 2. Don Emhardt Vice Chair (Town of Chautauqua)
- 3. Mary Hutchings Secretary (Chautauqua Lake Partnership)
- 4. Jim Andrews Treasurer (Town of Busti)
- 5. Pierre Chagnon (County of Chautauqua)
- Mike LaTone (Chautauqua Lake Partnership)
- 7. Dave Shepherd (Arnold Holmberg Foundation)
- 8. Paul (P.J.) Wendel, Jr. (County of Chautauqua)
- 9. Rob Yates (Town of North Harmony)

## **Chautauqua Lake – Our Shared Resource**



#### Economic Driver

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

# Figure 1. Chautauqua Lake Direct Drainage Basin GADMUS GOUTH CANADA CONTROL OF THE CONTROL OF TH

#### Characteristics

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

## Ecological Resource

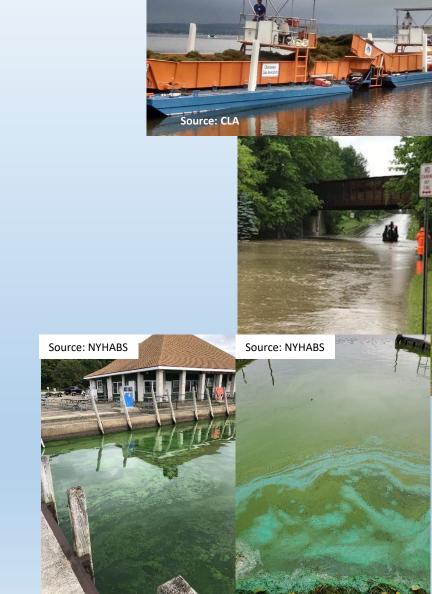
- 2<sup>nd</sup> best Musky fishery in NY (Wide Open Spaces)
- 83<sup>rd</sup> best bass fishing lake in the country (Bassmaster Magazine)
- Improving walleye fishery (NYS DEC)
- Supports rare, threatened, and endangered species



# Chautauqua Lake – Our Challenges, Our Opportunities



- Nuisance macrophyte (plant) growth (native and invasive)
- New invasive species threats
- 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)



# **Complex System, Comprehensive Focus**



#### Example Lake Projects

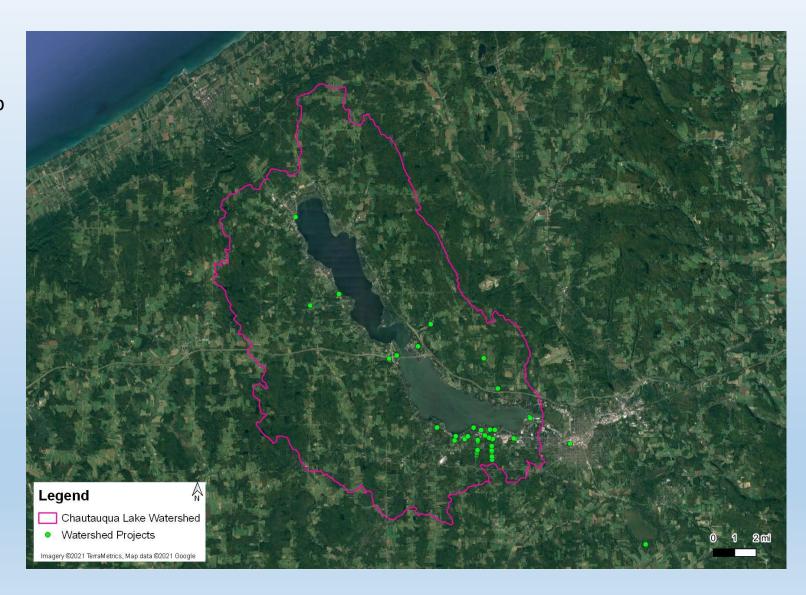
- Macrophyte harvesting
- Shoreline, Near-shore, and debris clean-up
- Chemical macrophyte management
- Invasive species programs/removal

#### 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



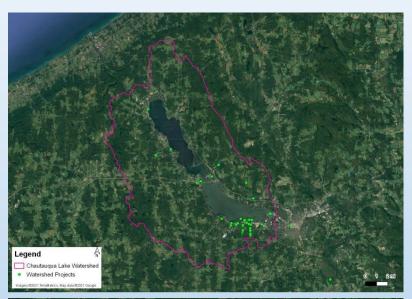
## **Progress through Partnership**

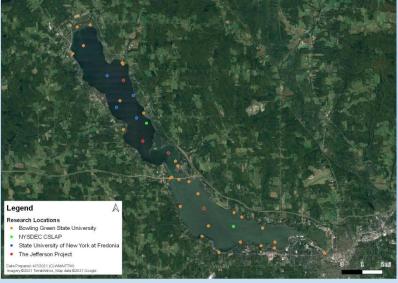


Alliance-Partnered Projects 2015 – 2021

79 total projects/programs Valued at ~\$7.4 Million

Blend of Lake, Watershed, and Research/Monitoring





## 2021 in Review

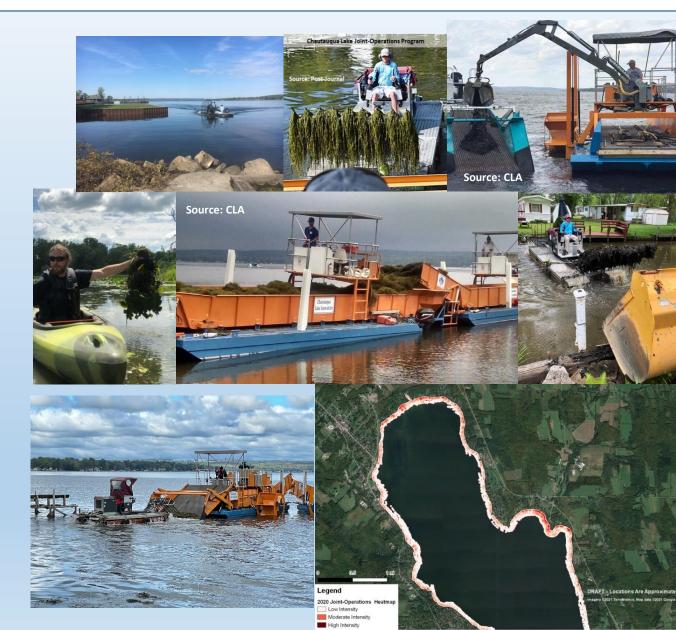


- 15 locally-funded, Member-led projects,
- 10 upcoming or recently completed NYS-funded projects,
- Involving 16 different Alliance Founding Members,
- Total value of >\$4,000,000
- Funding from The Lenna Foundation, the Chautauqua Region Community Foundation, the Ralph C. Sheldon Foundation, the Holmberg Foundation, the County, and New York State NYSDEC, NYSEFC & NYSDOS
- Our Community's Team at Work
  - <u>Lake:</u> CLA; Town of Chautauqua; CLP; Busti; Lakewood; Ellery; Bemus Point; Ellicott; Celoron; RTPI; Audubon Community Nature Center
  - Watershed: CWC; Lakewood; Busti; Celoron; North Harmony; County; NCLSD; Town of Chautauqua; Chautauqua County Soil & Water Conservation District
  - Research/Monitoring: CLP, Water Quality Research Panel

# 2021 Chautauqua Lake Management – A Balanced Approach



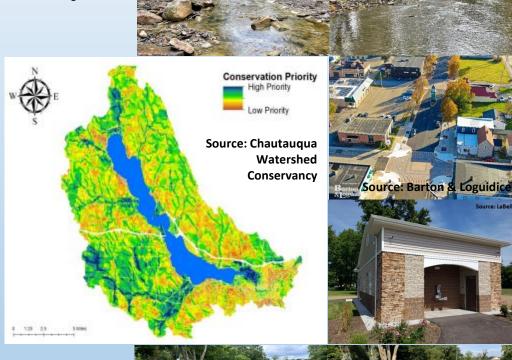
- Lake-wide service
- Joint Operations & Collaboration
- Near-shore/Shoreline cleanup (May-Oct)
- Macrophyte harvesting
  - Early season Curly Leaf Pondweed May/June
  - Regular season (~June-Sept)
- Herbicide treatments via NYSDEC permits
  - Aquathol K (Curly Leaf Pondweed) May ProcellaCOR EC (Eurasian Watermilfoil) – June
- Invasive species early detection & removal
- New equipment
- GPS
- Enhanced reporting of completed & planned work



## Long-term Investments in the Watershed



- Stream stabilization (Dutch Hollow, Ball Creek)
- Green Infrastructure (Lakewood)
- Swale retrofits (Busti, Chautauqua)
- Sewer Inflow & Infiltration (NCLSD)
- Lake access (Celoron)
- GIS analysis for prioritization (CWC)
- Homeowner consultations (CWC)
- Education and outreach (CWC)



## **Putting Data & Information to Work**



- Data → Information → Decisions
- Alignment of needs, resources, and timing for maximum benefit
- Assessment of effort and results
- Accessibility, Visualization & Communication
- Technology (GPS, GIS, sonar, mapping)
- Multiple lines of evidence
- Rapid assessment, adaptive workplans
- Historical perspective of long-term datasets
- Public updates
- Coordination with Alliance Committees, Staff, and Board







## **Collaborative Research Initiatives**

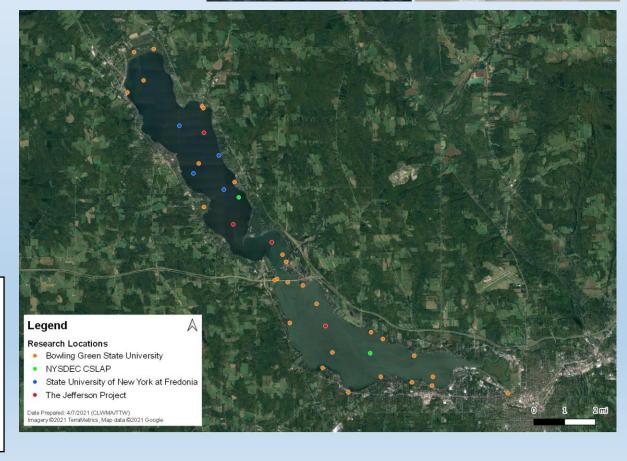


- Collaborative research efforts by leading experts in lake dynamics, HABs, environmental monitoring & modeling
- Sharing & coordination of data/planning
- "Science towards Solutions" approach
- Actionable data and information for decisionmakers
- Public updates
  - Coming Soon on June 18! Chautauqua Lake Water Quality Conference 2022 hosted by Chautauqua Institution

THANK YOU! The Jefferson Project at Lake George, Bowling Green State University, SUNY Fredonia, SUNY Oneonta, CSLAP (NYSDEC & Volunteers), NYHABS, North Carolina State University, Racine-Johnson Aquatic Ecologists, SOLitude Lake Management, Princeton Hydro, and More







# **Looking Ahead**



- 2022 Coordinated Lake Work Plan and New Watershed Initiatives led by Members
- New and ongoing research
- New partnerships
- 2022 NYS Consolidated Funding Application
- 2022-2023 Alliance Consolidated Local Grant Program







## **Acknowledgments**



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



## **Thank You!**



- Randall Perry, Alliance Executive Director
  - rperry@chautauquaalliance.org | (716) 661-8923
- Taylor West, Alliance Project Manager
- Jay Young, Alliance Communications Coordinator
- Website: <a href="http://www.chautauquaalliance.org/">http://www.chautauquaalliance.org/</a>
  - Full Version of 2021 Annual Report and copy of this presentation will be available online soon.





