



2023 Annual Report

Presented at the May Member Meeting

May 9, 2024



*"Water links us to our neighbor in a way more profound and complex than any other."
-John Thorson*

May Member Meeting Agenda

May 9, 2024 at 4:30 P.M.

The Lawson Center, 73 Lakeside Drive, Bemus Point, NY 14712 & via Zoom

- a. Call to Order
- b. Approval of May 2023 Annual Member Meeting Minutes
- c. Secretary’s Report on Notification and Quorum
- d. Election of Directors – Ballot Canvass and Report
- e. Presentation of 2023 Annual Report
- f. Member Open Discussion
- g. Adjourn

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Origin of an Alliance

The Chautauqua Lake & Watershed Management Alliance (Alliance) evolved from the Chautauqua Lake Management Commission (CLMC) in late 2014. Since its inception in 2005 and pursuant to its core mission, the CLMC was a major contributor to the development of the *Chautauqua Lake Watershed Management Plan* and initiated work on the *Chautauqua Lake Macrophyte Management Strategy (MMS)*, which sets forth specific recommendations for the proper management of our precious natural resources. The CLMC was an advisory committee to the Chautauqua County Legislature and having accomplished its core mission, it was determined that the CLMC would sunset in 2014 in order to evolve into a new Alliance.

The Alliance framework was developed through a series of stakeholder meetings, significant research, and forward-thinking innovation. The Alliance is a non-profit 501(c)3 charitable organization and was established in order to secure funding to implement the recommendations contained within Chautauqua Lake and watershed guidance documents. The Alliance also aims to strengthen existing relationships among Member organizations already engaged in important lake and watershed activities, and to promote a comprehensive and coordinated effort to ensure the sustained health, ecology, and uses of Chautauqua Lake and its watershed.

Our Mission is as follows: 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.

Summary of 2023 Achievements

The year 2023 marked the Alliance's ninth full year of operation. In those nine years, the Alliance has partnered on lake and watershed projects valued at approximately \$11 Million. Past, current, and future successes of this Alliance, working collaboratively toward an economically and environmentally healthy Chautauqua Lake, are made possible through the dedicated work of our Members and generosity of our funders. We thank all those involved. Through the generosity and leadership of our local Foundations and the County of Chautauqua, the Alliance was proud to once again facilitate a high level of local funding to our Members to implement a diverse 2023 work program to benefit the lake and watershed. Coupled with ongoing projects funded by New York State grants, Alliance-partnered projects continued to apply a balanced approach blending lake maintenance, watershed projects, and research. A strong 2024 workplan is

already underway by our Members, and we look forward to pursuing additional outside funding to complement these critical local investments.

IN-LAKE MANAGEMENT

The year 2023 was highlighted by a sustained unity of effort between Members, more structured and objective understanding of lake health and usability, and new endeavors. The Alliance, through its many programs and partnerships, actively supported the County of Chautauqua's Memorandum of Understanding framework for community cooperation and coordinated lake management. The Chautauqua Lake maintenance program included a balanced approach utilizing both chemical and mechanical macrophyte management techniques. The near-shore clean-up program continued to feature collaboration between the Chautauqua Lake Association (CLA) and Town of Chautauqua. These joint operations resulted in increased efficiency and responsiveness and are expected to remain a crucial part of the work plan in 2024. Mechanical harvesting operations led by the CLA included an early season program focused on large debris and curly-leaf pondweed harvesting. Operations were adjusted later in the management season in order to efficiently expend funds due to lower levels of nuisance plant growth than expected.

The Chautauqua Lake Partnership (CLP), the Towns of Ellery, Ellicott, and Busti, and the Villages of Bemus Point, Celoron, and Lakewood worked together to secure New York State Department of Environmental Conservation (DEC) permits for the chemical treatment of Eurasian watermilfoil and curly-leaf pondweed at targeted locations within the lake's littoral zone. The CLP continued to make progress on lake data collection, by contracting with researchers from North Carolina State University to perform aquatic plant surveys, which helped inform managers and stakeholders on lake conditions and added to long-term data archives. The coordination and data sharing among Alliance staff, CLP, NC State researchers, and others continues to be instrumental in tracking the condition and patterns of both native and invasive plant communities, particularly emerging invasive species like starry stonewort and brittle naiad.

DATA & RESEARCH

Sharing of data and open dialogue on scientific research have continued to grow in a positive direction. The 2023 Chautauqua Lake Conference, sponsored by Chautauqua Institution, was held on June 17 at The Athenaeum Hotel. The event, which was open to the public, featured presentations by Dr. Courtney Wigdahl-Perry from the State University of New York at Fredonia; Alliance Executive Director Randall Perry; Dr. Lisa Cleckner of the Finger Lakes Institute; Dr. Jeanette Schnars of the Regional Science Consortium at Presque Isle; Dr. Kevin Rose, Dr. Harry Kolar, and Dr. Allison Hrycik from

The Jefferson Project at Lake George; and DEC Region 9 Director Julie Barrett O'Neill. These public events are crucial to connect stakeholders with the many exceptional researchers that conduct their work in our lake and watershed. The Jefferson Project also issued a 2023 final report outlining its research to the Chautauqua County Legislature, which authorized funding for the year's research operations. The Alliance continued to facilitate data sharing among research groups and stakeholders, and distributed updated research information to the public via our Lake Data/Surveys webpage.

Alliance Staff continued several data and information collection initiatives on the lake. The Chautauqua Lake Aquatic Data (CLAD) Mapping Program continued its GPS Weed Management Program, which is implemented in partnership with the CLA and Town of Chautauqua. Key pieces of equipment were once again fitted with GPS units in 2023, furthering the ability to track, map, archive, and assess the mechanical plant management programs. The CLAD program also employs consumer-grade underwater video and sonar technology to collect information and data on Chautauqua Lake conditions throughout the year. The program allows for the rapid deployment of staff and technology depending on lake conditions and priorities and helps augment other lake surveys completed by professional or academic entities. Data collected by staff, data shared by researchers or members, and data included in past reports and studies, are managed and archived in a Geographical Information System (GIS) platform. The Alliance expanded the CLAD program in 2023 to include regular biovolume surveys of a ~1,000-acre area of the South Basin and the Chadakoin outlet.

WATERSHED & EMERGING INVASIVE SPECIES

Watershed management remained a key pillar of the longer-term work plan to help address the root causes of lake impairments. Throughout the winter and spring, staff worked with Members and stakeholders to identify projects well-suited to the New York State Consolidated Funding Application (NYSCFA) process, and drafted those applications for submission. Applications submitted in 2023 were awarded early in 2024. Alliance Members secured five new New York State grants, accounting for around \$885,000 in new project funding, with about \$714,000 coming from the state. Members earned two grants via the DEC Water Quality Improvement Project (WQIP) program. These awards will fund a constructed wetland project in the Village of Lakewood and a culvert replacement in the Town of North Harmony, both of which are intended to improve the quality of water entering the lake. Chautauqua County received a grant to conduct a sediment and debris management study of Bemus Creek, which will identify and recommend future improvements to the stream to address erosion and flooding.

The Towns of Chautauqua and North Harmony each secured grants via the recently reopened Invasive Species Grant Program. These grants will fund diver-assisted suction harvesting of the invasive algae starry stonewort at areas near Prendergast Point and Ashville Bay. This invasive species spreads easily via fragmentation, and can grow to nuisance levels that negatively impact recreation and native fish and plants. With only \$3 Million in funds available statewide via the Invasive Species Program, these two projects account for almost 7% of all statewide awards, and were the only grants awarded to the Western New York Region by this program.

The Chautauqua Watershed Conservancy continued to implement initiatives in the watershed through its Chautauqua Lake Watershed Technical Assistance & Stormwater Management Program, and conducted vital public outreach via its popular LakeScapes program. Invasive species detection and management was an expanded priority this past year, as new needs were identified. The CWC continued to lead the way forward via its Aquatic Invasive Species Early Detection & Monitoring Taskforce program, which was used to survey and remove existing populations of water chestnut in the Chadakoin outlet. While conducting plant surveys in 2022, significant populations of the invasive macroalgae starry stonewort were identified by the CWC team. These infestations near Ashville Bay and Prendergast Point were prioritized for monitoring and management by several local partners in 2023, and are the planned sites of DASH management in 2024. A pilot mechanical removal of the monoculture in Ashville Bay was led by CWC Director of Conservation Twan Leenders, and took place in late September. The first test of its kind on the lake, Mobitracs and two County-owned skimmers operated by CLA were used to gather patches of the invasive algae from a 1.5-acre field in Ashville Bay. Around 30 tons of material were collected in 15 skimmer loads over those two days and offloaded to a CLA truck via a new conveyor recently purchased by the County. Material was then composted at an upland farm owned by Town of North Harmony Supervisor Rob Yates. This pilot test was led by Leenders via an Alliance grant and funding from the County. Project evaluation is currently underway with the DEC, which will assess how this new method might be scaled up to address other areas of starry stonewort. Other management options along with combined approaches are also being considered. The CLP is working with Ready Scout LLC, NC State, and DEC to evaluate chemical management options.

Leenders and the CWC also continued their Aquatic Invasive Species Early Detection Program in 2023. In addition to mapping the spread of starry stonewort and organizing its removal, the program managed water chestnut in the Chadakoin outlet via hand-pulling. Around 250 plants were removed from the outlet during a large pull in September. CWC staff and volunteers also mapped detections of other invasive species

such as brittle naiad during these volunteer paddles, and are continuing to catalogue this information using the iMapinvasives platform. In addition to the detection and removal of known populations of invasive species, a key to combating the spread of problem weeds is prevention. CLA staffed watercraft stewards at the lake's public launches throughout the summer, collecting boat traffic information and encouraging users to clean, drain, and dry their vessels. These programs are key to reducing future management costs by intercepting new species before they cause issues in the lake.

Stakeholders and Alliance staff attended the Western New York Partnership for Regional Invasive Species Management Spring Partners Meeting as well as the Water Chestnut Working Group meetings and are continuing to work alongside PRISM to assess future management options for starry stonewort.

CONSOLIDATED LOCAL FUNDING PROGRAM


In the fall, the Alliance submitted its sixth annual Consolidated Foundation Funding Grant Request, which prioritized funding for multiple Alliance Member-led lake and watershed projects. By early 2024, the Alliance had secured around \$1 Million from The Lenna Foundation, the Chautauqua Region Community Foundation, the Ralph C. Sheldon Foundation, the Hultquist Foundation, the Holmberg Foundation, and Chautauqua County to support these projects for implementation. This level of funding and local investment in the lake and watershed is made possible by the growing partnerships and unity of effort between Alliance Members, as collectively, we work to employ a balanced approach aimed at a well-maintained lake and watershed that supports our residents, our businesses, and our environment. The full listing of these projects is included later in the report.

COMMUNICATIONS

Staff continued to expand content on the Alliance website throughout the year by adding new reference materials, press releases, news updates, and content to the Projects page. Regular updates on lake and watershed news were once again submitted throughout 2023 to *The Post-Journal* via the recurring *Chautauqua Current* column. There are currently 38 Chautauqua Current issues published and available on the Alliance website at <http://www.chautauquaalliance.org/the-chautauqua-current/>. Alliance staff also continued to establish and grow valuable in-person relationships with stakeholders by participating in events and conferences, including those hosted by Western New York PRISM, the New York State Federation of Lake Associations WNY Regional Conference, North East Aquatic Plant Management Society Conference, and the North American Lake Management Society Annual Conference in Erie, PA. Several stakeholders working directly on Chautauqua Lake delivered presentations at the NALMS Annual Conference,

including Doug Conroe of CLA, Dr. Allison Hrycik of The Jefferson Project, and Dr. Courtney Wigdahl-Perry of the State University of New York at Fredonia.

[Click here to view an archive of past Chautauqua Current Issues found below.](#)



Chautauqua Current No. 38
Chautauqua Lake & Watershed Management Alliance, Inc.
April 22, 2024


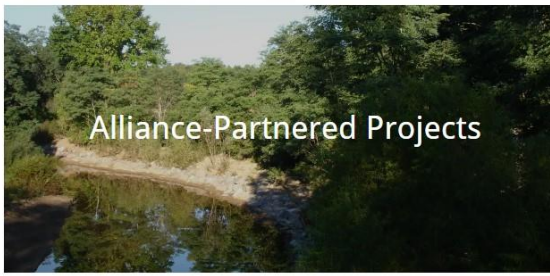


Figure 1. Alliance Project Manager Taylor West uses a GoPro camera to take underwater video of plant conditions near Bemus Point.

Lights, Camera, Action
Lake Season Startup
By Jay Young
Chautauqua Lake & Watershed Management Alliance

Memorial Day may still be a month away, but work on and around Chautauqua Lake has already kicked off this spring. Many important off-season developments have happened over the past several months, and we at the Alliance along with our members look forward to sharing those with the public as 2024 moves along.



Alliance-Partnered Projects

Since 2015, the Alliance has partnered on an array of projects aimed at improving the water quality in Chautauqua Lake and its watershed for its multitude of uses and users. These projects are made possible thanks to the work of many dedicated partners, with funding generously provided by The Lenna Foundation, Ralph C. Sheldon Foundation, Chautauqua Region Community Foundation, Gebbie Foundation, Holmberg Foundation, Hultquist Foundation, County of Chautauqua, New York State, and private contributors.

*Click button categories below to view projects and supporting information. Alliance-partnered projects make up the majority of content on these pages, however other related projects and resources may also be included.

- Data & Research
- Invasive Species
- Lake Maintenance
- Planning & Prioritization
- Stormwater Management
- Stream Stabilization
- Waterfront Revitalization

The Alliance continues to engage the public on lake and watershed developments via the *Chautauqua Current*, which can be found on the Alliance website and is submitted to *The Post-Journal*.

Information on partnered projects and relevant data and resources continue to be expanded on the Alliance website.

The Alliance is honored to be comprised of Member organizations that understand the incredible asset Chautauqua Lake and its watershed are to the County and the entire region, and we are proud to have partnered with each of the nine Lake municipalities, the County, and numerous other Members to develop impactful projects, secure funding, manage implementation, and ensure project completion. By working in collaboration with as many stakeholders as possible, we deepen our collective focus, strength, and leveraging capabilities, for the benefit of Chautauqua Lake, its watershed, and ultimately our community. The Alliance would like to thank everyone – our Members, local Foundations, and other lake and watershed stakeholders – for their support and passion over the past eight years, as we look forward to another great year in 2024.

2023-2024 Members

- Chautauqua – Cattaraugus Board of Realtors
- Chautauqua County Visitors Bureau
- Chautauqua Institution
- Chautauqua Lake Association
- Chautauqua Lake Fishing Association
- Chautauqua Lake Partnership
- Chautauqua Watershed Conservancy
- County of Chautauqua
- Holmberg Foundation
- Jamestown Board of Public Utilities
- North Chautauqua Lake Sewer District
- South & Center Chautauqua Lake Sewer Districts
- The Lenna Foundation
- Town of Busti
- Town of Chautauqua
- Town of Ellery
- Town of Ellicott
- Town of North Harmony
- Village of Bemus Point
- Village of Celoron
- Village of Lakewood
- Village of Mayville

2023 Alliance-Partnered Project Summaries

This report includes information on projects that were open during 2023. For information on past projects, please review our prior Annual Reports on the Alliance website.

County of Chautauqua, NYSDEC Non-Agricultural Nonpoint Source Planning and MS4 Mapping Grant (NPG) Grant, Bemus Creek Sediment and Debris Management Plan

Description: This project is expected to produce a stream sediment and debris management plan for a section of Bemus Creek in the Town of Ellery and Village of Bemus Point which will identify areas in the stream basin that contribute to flood risk and erosion. The plan will develop recommendations to reduce the risk of future flooding, erosion, and debris jams to benefit the overall function of the creek and protect homes and infrastructure in the area. The focus area of this study will be the lower sections of the creek, including areas near the Shore Acres community that have suffered from flooding in recent years.

Projected budget: Total: \$55,000 | State: \$50,000 | Local: \$5,000

Grantee: County of Chautauqua

Alliance Role: Grant writing and administration; project management/coordination

Funding Overview: The majority of the project cost is funded by the NYSDEC Non-Agricultural Nonpoint Source Planning and MS4 Mapping Grant (NPG) Grant program. Local matching funds are expected to be provided by Chautauqua County.

Village of Lakewood, NYSDEC Water Quality Improvement Project (WQIP), Village of Lakewood Fairmount Avenue Constructed Wetland Project

Description: This project will construct a new wetland pond system to capture and treat stormwater from a 109-acre area. The project will use native seed mixes, live stakes, shrubs and trees to increase flood resiliency and reduce sediment and nutrient conveyance to Chautauqua Lake. The project area is near the business corridor of Fairmount Avenue, which has been subjected to flooding during storm events in recent years.

Projected budget: Total: \$306,095 | State: \$244,876 | Local: \$61,219

Grantee: Village of Lakewood

Other Involved Member Partners: Chautauqua Watershed Conservancy, County of Chautauqua

Alliance Role: Grant writing and administration; project management/coordination; local match via Alliance/Foundation Match Fund

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Water Quality Improvement Project program. Local matching funds are expected to be provided by the Village through a County 2% Waterways grant and the Alliance/Foundation Match Fund supported by the Chautauqua Region Community Foundation, The Lenna Foundation, and the Holmberg Foundation.

Town of North Harmony, NYSDEC Water Quality Improvement Project (WQIP), Town of North Harmony Carpenter-Pringle Road Stream Culvert Replacement

Description: The Town of North Harmony will replace an aged stream culvert with a new larger arch pipe, and install bank protection at the project site in order to reduce erosion and protect road infrastructure. This Culvert replacement will also improve stream function and reduce the negative impacts of storm events, ensuring climate resilience.

Projected budget: Total: \$273,500 | State: \$218,800 | Local: \$54,700

Grantee: Town of North Harmony

Alliance Role: Grant writing and administration; project management/coordination

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Water Quality Improvement Project program. Matching funds are expected to be provided by the Town in the form of in-kind construction services.

Town of North Harmony, NYSDEC Invasive Species Grant, Chautauqua Lake Ashville Bay Starry Stonewort Control Project

Description: The Town of North Harmony’s Chautauqua Lake Ashville Bay Starry Stonewort Control Project is expected to manage an approximately 3 acre monoculture of invasive algae using diver assisted suction harvesting (DASH). Starry stonewort is an invasive macroalgae which spreads easily via fragmentation, and can impair recreation and crowd out native species. The DASH management technique is intended to limit impacts on native plant and animal species while addressing the algae growing in the water column as well as the lake bottom.

Projected budget: Total: \$125,000 | State: \$100,000 | Local: \$25,000

Grantee: Town of North Harmony

Alliance Role: Grant writing and administration; project management/coordination; local match via Alliance Lake Maintenance Operations and Capital Fund

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Invasive Species Grant Program. The local match is expected to come from the Alliance Lake Maintenance Operations and Capital Fund supported by the County of Chautauqua.

Town of Chautauqua, NYSDEC Invasive Species Grant, Chautauqua Lake Prendergast Point Starry Stonewort Control Project

Description: The Town of Chautauqua’s Chautauqua Lake Prendergast Point Starry Stonewort Control Project is expected to manage an approximately 5 acre monoculture of invasive algae using diver assisted suction harvesting (DASH). Starry stonewort is an invasive macroalgae which spreads easily via fragmentation, and can impair recreation and crowd out native species. The DASH management technique is intended to limit impacts on native plant and animal species while addressing the algae growing in the water column as well as the lake bottom.

Projected budget: Total: \$125,000 | State: \$100,000 | Local: \$25,000

Grantee: Town of Chautauqua

Alliance Role: Grant writing and administration; project management/coordination; local match via Alliance Lake Maintenance Operations and Capital Fund

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Invasive Species Grant Program. The local match is expected to come from the Alliance Lake Maintenance Operations and Capital Fund supported by the County of Chautauqua.

Town of Chautauqua, NYSDEC Non-Agricultural Nonpoint Source Planning Grant, Town of Chautauqua Stream Culverts Assessments

Description: The Town of Chautauqua's Stream Culvert Assessments is expected to generate an engineering design report to address erosion concerns resulting from two potentially inadequately sized and/or failing stream culverts located along Wright Road and Elmwood Road. The Elmwood Road stream culvert is an old concrete open bottom culvert that is actively decaying, is in need of replacement and potential resizing, and is likely causing bank erosion directly upstream of the culvert. The Wright Road culvert is an approximately 42-inch-wide galvanized pipe that conveys a class C stream that is likely undersized and misaligned, which is likely contributing to bank erosion both upstream and downstream (significant expansion scour present) of the culvert. The Stream Culvert Assessments Study will produce an engineering design report that utilizes the North Atlantic Aquatic Connectivity Collaborative framework to identify erosion issues, potential barriers to aquatic connectivity, and repair/replacement options.

Projected budget: Total: \$33,000 | State: \$30,000 | Local: \$3,000

Grantee: Town of Chautauqua

Alliance Role: Grant writing and administration; project management/coordination; local match via Alliance/Foundation Match Fund

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Non-Agricultural Nonpoint Source Planning Grant program. The local match is expected to come from the Town and the Alliance/Foundation Match Fund supported by the Chautauqua Region Community Foundation, The Lenna Foundation, and the Holmberg Foundation.

Village of Lakewood, NYSDEC Non-Agricultural Nonpoint Source Planning Grant, Village of Lakewood Commercial Corridor Stormwater Engineering Study-Mall Boulevard

Description: This project aims to produce a stormwater engineering study to recommend actions to improve water quality, mitigate flooding, improve public safety, and encourage redevelopment within a targeted area of Mall Boulevard. Mall Blvd., which bisects Route 394 and Hunt Road, has at times experienced severe flooding that has posed safety risks to the general public and has damaged infrastructure. This flooding has also contributed to water quality impairments in Chautauqua Lake's south basin. Flood risk is also a factor for businesses considering settling in the impacted area, which has several areas that are being considered for redevelopment. The Village intends to hire a professional engineer to prepare a report recommending stormwater improvements to address these concerns.

Projected budget: Total: \$33,000 | State: \$30,000 | Local: \$3,000

Grantee: Village of Lakewood

Alliance Role: Grant writing and administration; project management/coordination; local match via Alliance/Foundation Match Fund

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Non-Agricultural Nonpoint Source Planning Grant program. The local match is expected to be provided by the Village and the Alliance/Foundation Match Fund supported by the Chautauqua Region Community Foundation, The Lenna Foundation, and the Holmberg Foundation.

Town of North Harmony, NYSDEC Non-Agricultural Nonpoint Source Planning Grant, North Harmony Ball Creek Stabilization Engineering Study Phase II

Description: The Town of North Harmony's Ball Creek Stabilization Engineering Study proposes to assess approximately 2,640 linear feet of stream corridor along Ball Creek from Route 394 to Chautauqua Lake. Within the proposed study area, there are several locations that have severely eroded banks and are in need of bank and/or channel stabilization. The Town intends to retain the services of a licensed professional engineer to assess the stream corridor and provide an engineering design report that would identify areas of erosion and stream instability and suggest potential management actions

that could be implemented at these locations to reduce sediment and nutrient loading to Chautauqua Lake.

Projected budget: Total: \$33,000 | State: \$30,000 | Local: \$3,000

Grantee: Town of North Harmony

Alliance Role: Grant writing and administration; project management/coordination

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Non-Agricultural Nonpoint Source Planning Grant program. The local match is expected to be provided by the Town.

Village of Celoron, Environmental Protection Fund Grant Program for Parks, Preservation and Heritage, Lucille Ball Memorial Park Playground Improvements Project

Description: The goal of this project is to replace the 28-year-old existing playground in Lucille Ball Memorial Park, which is located along the lakeshore in the Village of Celoron. The playground will consist of play equipment designed for ages 2-5, ages 5-12 and an area with a solid surface and equipment designed for wheelchair use. It will be handicap accessible to provide a play area for use by all. The current playground was constructed below grade and floods in the spring and during heavy rainfall. It is not handicap accessible and only serves 5-12 year old children. It has some cracked parts that cannot be replaced and has become an eyesore in the recently revitalized park. A new playground will provide handicap accessible play areas for all ages that will be constructed above grade to prevent flooding. It is expected to include features such as swings, a climbing wall, seesaw, bobble riders, two playsense areas, features that will be designed for wheelchair bound children, or other similar features.

Projected budget: Total: \$220,000 | State: \$165,000 | Local: \$55,000

Grantee: Village of Celoron

Alliance Role: Grant writing

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund Grant Program for Parks, Preservation and Heritage. The local match is expected to be supplied by the Village.

Town of North Harmony, NYSDEC Water Quality Improvement Project (WQIP), Ball Creek Stabilization Project

Description: This project was done to improve stream stability (grade control), stabilize two severely eroding streambanks, reduce sediment and nutrient loading, and protect highway infrastructure along approximately 400 linear feet of Ball Creek. It provided ~2,200 feet of stream corridor improvements. Best management practices (BMPs) were incorporated to reduce ongoing channel and bank erosion, reduce water velocities, promote infiltration and bio-filtration, enhance biodiversity and habitat for birds and pollinators, and improve aesthetics. These included rock bank protection, willow live stakes and native plantings, hydro seeding, log veins, and the construction of a riparian buffer. A local grant from the Alliance's Consolidated Foundation Grant program was used to complete the first phase of the project and leverage this State grant. The grant was awarded in late 2021. The majority of construction was completed in late 2023, with final work expected to be completed in 2024.

Projected budget: Total: \$219,390 | State: \$175,512 | Local: \$43,878

Grantee: Town of North Harmony

Alliance Role: Grant writing and administration; project management/coordination; local match via an Alliance Consolidated Local Grant and Alliance/Foundation Match Fund

Other Involved Member Partners: Chautauqua Watershed Conservancy; County of Chautauqua (in-kind construction)

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Water Quality Improvement Project program. The local match is expected to come from the Alliance/Foundation Match Fund supported by the Chautauqua Region Community Foundation, The Lenna Foundation, and the Holmberg Foundation, and a portion of a 2021 Alliance Consolidated Foundation Grant with funding provided by The Lenna Foundation, the Ralph C. Sheldon Foundation, and the Chautauqua Region Community Foundation.



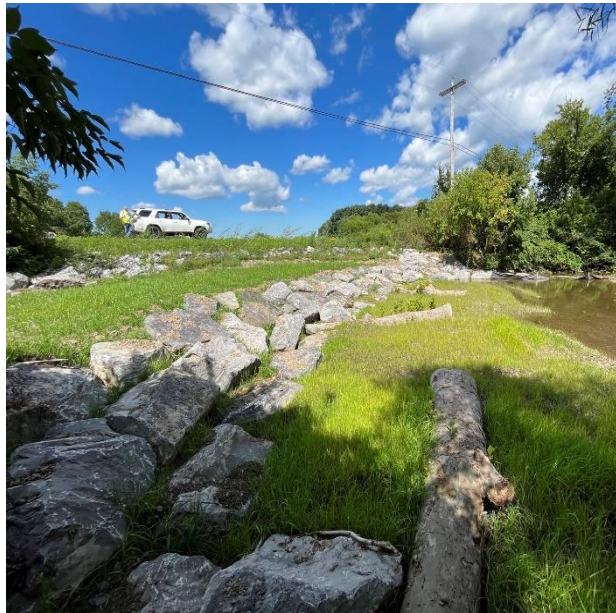
Photo 1. Ball Creek Tri-James bend 7/21/2021 before construction.



Photo 2. Ball Creek 10/11/23 after construction.



Pictured above is the Stow Road bend of Ball Creek prior to construction.



Pictured above is the Stow Road Bend after substantial completion, including a bendway weir pictured at the bottom right of frame.

Town of Chautauqua, NYSDEC Water Quality Improvement Project (WQIP), Chautauqua Roadside Swales Stabilization Project

Description: This project is intended to implement swale improvements at approximately 11 sites within the Town of Chautauqua, stabilizing ~16,600 linear feet of roadside ditches. Through the construction of check dams, introduction of deep rooted vegetation, and channel stabilization these priority swales sites will help to reduce stormwater velocity, promote infiltration and biofiltration, and improve water quality in Chautauqua Lake. The grant was awarded in late 2021. The Town's Highway

Department will perform construction on the project as the local match. The engineer, Barton and Loguidice was finalizing the design in late 2023, with construction expected to begin in 2024.

Projected budget: Total: \$342,985 | State: \$213,057 | Local: \$129,928

Grantee: Town of Chautauqua

Alliance Role: Grant writing and administration; project management/coordination

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Water Quality Improvement Project program. The remaining share is expected to be provided by the Town via in-kind local match from construction labor and equipment provided by Town Highway Department personnel.



Above: Erosion paths can be seen along the north bank of Moore road, left, and the east side of Burdick road, right.

Village of Lakewood, NYSDEC Water Quality Improvement Project (WQIP), Grandview Stormwater Management Project

Description: This project is intended to improve water quality in the lake and watershed through nutrient and sediment reduction, enhance the aesthetics of the area, and reduce flooding impacts along Route 394 through the construction of engineered wetlands. Approximately 100,000 cubic feet of stormwater detention have been added to the eastern portion of the Grandview subdivision via the installation of three main stormwater detention ponds connected by cascading swales. Best management practices from the New York State Stormwater Management Design Manual were used, including native

plantings. Project features also include a natural trail, public access points and educational signage. The grant was awarded in late 2021. Construction achieved substantial completion in late 2023 and is expected to be finished in 2024.

Projected budget: Total: \$312,580 | State: \$250,064 | Local: \$ 62,516

Grantee: Village of Lakewood

Alliance Role: Grant writing and administration; project management/coordination; local match via an Alliance Consolidated Local Grant and Alliance/Foundation Match Fund



Photo of the east wetland during construction.



Photo of the north stormwater channel during construction.

Other Involved Member Partners: Chautauqua Watershed Conservancy; County of Chautauqua

Funding Overview: The majority of the project cost is funded by the Environmental Protection Fund administered by the New York State Department of Environmental Conservation through the Water Quality Improvement Project program. The local match is expected to come from the Alliance/Foundation Match Fund supported by the Chautauqua Region Community Foundation, The Lenna Foundation, and the Holmberg Foundation, a County Occupancy Tax 2% Lakes and Waterways Grant to the Village of Lakewood, and a portion of a 2020 Alliance Consolidated Foundation Grant with funding provided by The Lenna Foundation, the Ralph C. Sheldon Foundation, and the Chautauqua Region Community Foundation.

Other 2023 Alliance Projects & Programs

2022-2023 Alliance Consolidated Local Funding Program

In 2022, the Alliance renewed for a fifth consecutive year its partnership with the Ralph C. Sheldon Foundation, The Lenna Foundation, and the Chautauqua Region Community Foundation, to offer 2023 local funding assistance opportunities to its Members via our local grant application process to identify, prioritize, and fund projects and programs to protect and improve water quality in Chautauqua Lake and its watershed. Funding applications, which were available exclusively to Alliance Members, were distributed on July 13, 2022 and due on September 14, 2022. The Alliance received 17 applications from Members totaling ~\$2.95M in requests. Applications were subject to technical review by staff and volunteer Alliance Committee members using our *5-Year Strategy* and Multi-Criteria Analysis (MCA) Tool. The Alliance Board prioritized the candidate projects and assigned funding recommendations summarized in the list below. The funding recommendations were made by the Alliance Board of Directors to the partner Foundations in late 2022 with final decisions made in April 2023. Supplemental funding was also secured via grants to the Alliance from the Hultquist and Holmberg Foundations and County of Chautauqua. The following projects were carried out in 2023:

- Town of Chautauqua: Mobitrac Operations, ~1.5 million pounds of nearshore plant/debris; season shortened based on actual need
- Chautauqua Lake Association: 2023 All-Inclusive Operational Support, lakewide program removed ~8.7M pounds of plants/debris including Mobitracs
- Chautauqua Lake Partnership on behalf of Towns of Ellery, Ellicott, and Busti and Villages of Bemus Point and Lakewood: Herbicide Treatments for Curly-Leaf pondweed and/or Eurasian Watermilfoil (Combined grant, contingent on 2023 NYSDEC permits), treatment of ~200 total acres of invasive plants; control effectiveness of 90% reported by licensed applicator to DEC
- Chautauqua Watershed Conservancy: 2023 Chautauqua Lake Aquatic Invasive Species Early Detection Volunteer Taskforce, Multiple early detection surveys and invasive removals including water chestnut pulls in lake outlet (at least 250 plants removed), new or expanded brittle naiad detections, and a pilot starry stonewort removal project in Ashville Bay (around 30 wet tons removed)
- Chautauqua Lake Association: 2023 Watercraft Steward Support, staffed seven public boat launches from Memorial to Labor Day
- Chautauqua Lake Partnership: Lake Surveys
- Chautauqua Lake Partnership: 5 Year Plan for Lake Management of Herbicides

- Chautauqua Watershed Conservancy: Watershed Technical Assistance and Stormwater Management Program, 206 homeowner consultations
- Mobitrac Joint Operations Support Fund

Total budget (Awarded in '23): ~\$1.2M

Alliance Role: Grantee; Grant management

Funding Overview: Funding was provided by the Ralph C. Sheldon Foundation, The Lenna Foundation, the Chautauqua Region Community Foundation, the Hultquist Foundation, the Holmberg Foundation, and Chautauqua County in the form of grants to the Alliance, which were subsequently distributed for Member projects.



CWC Invasive Species Taskforce



Chautauqua Lake Association Watercraft Stewards Program (Source: CLA).



Photo of a Town of Chautauqua Mobitrac collecting plant debris (Source Mobitrac operator).



Photo of a Chautauqua Watershed Conservancy Technical Assistance Event (Source: CWC).

2023-2024 Alliance Consolidated Local Funding Program

In 2023, the Alliance renewed for a sixth consecutive year its partnership with the Ralph C. Sheldon Foundation, The Lenna Foundation, and the Chautauqua Region Community Foundation, to offer 2024 local funding assistance opportunities to its Members via our local grant application process to identify, prioritize, and fund projects and programs to protect and improve water quality in Chautauqua Lake and its watershed. Funding applications, which were available exclusively to Alliance Members, were distributed on July 12, 2023 and due on September 7, 2023. The Alliance received 17 applications from Members totaling ~\$3.2M in requests. Applications were subject to technical review by staff and volunteer Alliance Committee members using our *5-Year Strategy* and Multi-Criteria Analysis (MCA) Tool. The Alliance Board prioritized the candidate projects and assigned funding recommendations summarized in the list below. The funding recommendations were made by the Alliance Board of Directors to the partner Foundations in late 2023 with final decisions made in early 2024. Supplemental funding was also secured via grants to the Alliance from the Hultquist and Holmberg Foundations and County of Chautauqua. A grant for a new data dashboard was also made to Chautauqua Institution using Jefferson Project-specific funding from the Alliance. These additional funds have been awarded by the Alliance as supplemental grants for Member projects planned for 2024.

- Town of Chautauqua: Mobitrac near shore cleanup
- Chautauqua Lake Association: 2024 All-Inclusive Operational Support
- Chautauqua Lake Partnership on behalf of Town of Ellery, Town of Ellicott, Town of North Harmony, Town of Busti, Village of Bemus Point, Village of Celoron, and Village of Lakewood: Herbicide Treatments for Curly-Leaf pondweed and/or Eurasian Watermilfoil (Combined grant, contingent on 2024 NYSDEC permits)
- Chautauqua Lake Partnership: Algaecides for Starry Stonewort
- Chautauqua Watershed Conservancy: 2024 Chautauqua Lake Aquatic Invasive Species Early Detection Volunteer Taskforce
- Chautauqua Lake Partnership: Lake Surveys
- Chautauqua Watershed Conservancy: Watershed Technical Assistance and Stormwater Management Program
- Chautauqua Watershed Conservancy: Stormwater mitigation study - Goose Creek engineered wetlands concept development and engineering (Towns of North Harmony & Busti)
- Chautauqua Lake Association: Mobitrac Joint Operations Support Fund
- Alliance Operational Support

- Chautauqua Institution: Jefferson Project Data Dashboard
- Chautauqua Lake Association: 2024 Early Season Lake Maintenance Operations

Total projected budget (Awarded YTD '24): ~\$ 958,989

Alliance Role: Grantee; Grant management

Funding Overview: Funding was provided by the Ralph C. Sheldon Foundation, The Lenna Foundation, the Chautauqua Region Community Foundation, the Hultquist Foundation, the Holmberg Foundation, and Chautauqua County in the form of grants to the Alliance, which will subsequently be distributed for Member projects.

Chautauqua Institution's Jefferson Project Tributary Stations Capital Grant

In 2023 the Alliance was asked by the Ralph C. Sheldon Foundation to serve as a pass-through fiduciary for Chautauqua Institution's Jefferson Project Tributary Stations Capital Grant. In June the Alliance Board approved the request, which was used to fund the construction of six tributary monitoring stations to monitor the quality of water entering the lake. Under the leadership of the Chautauqua Institution and The Jefferson Project, stations were constructed on Dewittville, Mud, Prendergast, Ball, Bemus, and Goose Creeks, and a seventh station was built to monitor flow in the Chadakoin River. Stantec Consulting Services has served as the technical lead during the construction process, and TimberHut Cabin Company provided the pre-fabricated structure of the stations. Construction commenced in the fall of 2023 and is expected to be completed in the spring of 2024. Measurements of various water quality variables from these stations will be incorporated into environmental models developed by The Jefferson Project with IBM Research.

Total projected budget: \$500,000

Project Lead: Chautauqua Institution

Alliance Role: Pass-through fiduciary.

Funding Overview: Funding was provided by the Ralph C. Sheldon Foundation



Pictured above is a stream station under construction along Goose Creek.

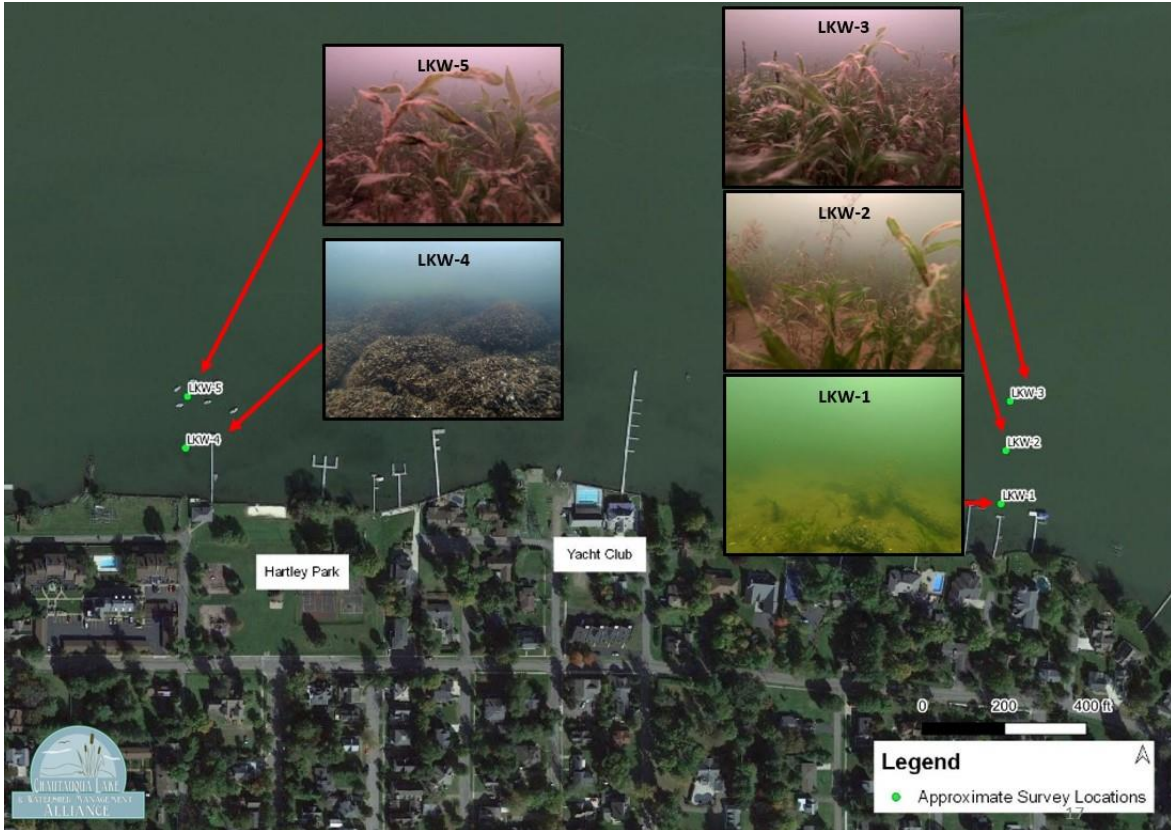


Pictured above are the instrument and sample conduits exiting the rear of the station, which enter the creek via a series of pipes.

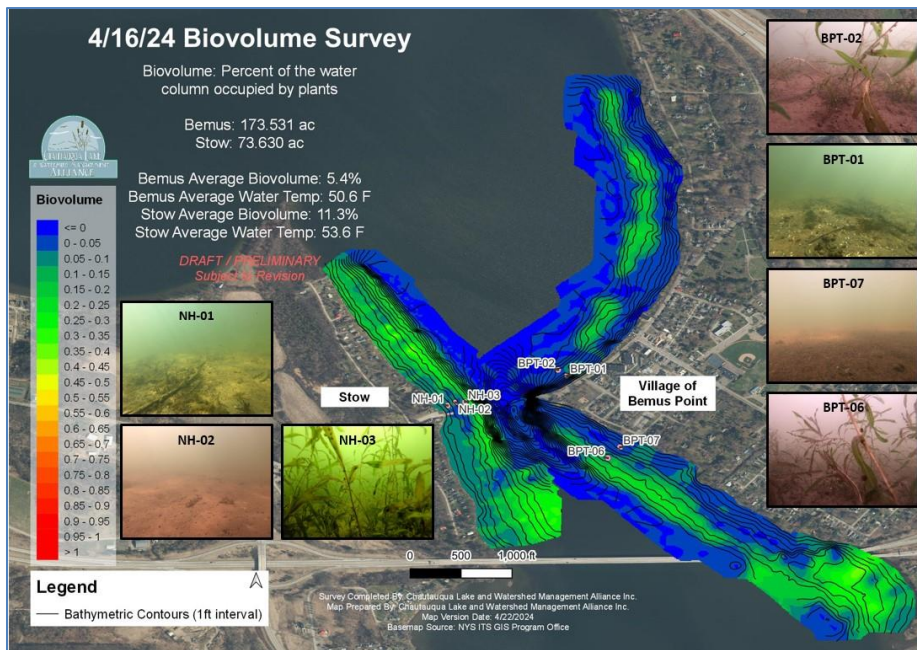
Chautauqua Lake Aquatic Data (CLAD) Mapping Program

The Chautauqua Lake Aquatic Data (CLAD) Mapping Program, initiated by the Alliance in 2020, continued in 2023. The program includes the collection of field data by Alliance staff and Members using a variety of equipment throughout the year, focusing on the development of new long-term data and information sets related to lake conditions and management actions. These and other lake-related data collected and shared by researchers are organized and mapped using Geographical Information System (GIS) software to help unify, increase the accessibility and shareability of, and aid a more thorough assessment of these once-disparate datasets.

CLAD operations in 2023 once again included GPS logging of the CLA fleet of harvesters and skimmers, as well as Town of Chautauqua Mobitrac operations. The maps that are generated from this monitoring program now form a historical dataset of mechanical maintenance operations that can be used for future planning and analysis by stakeholders. CLAD capabilities also include underwater video collection to assess plant conditions, bathymetry, macrophyte biovolume (percentage of plants occupying the water column), and bottom hardness in targeted areas of the lake. Staff continued regular biovolume surveys throughout 2023 and expanded the biovolume program to include monthly surveys of an approximate 1,000-acre survey of the lake's Lower South Basin, including Burtis Bay and part of the Chadakoin Outlet. The Alliance is optimistic that in the future the varied capabilities of CLAD can continue to serve Members and other stakeholders in scenarios where data collection and monitoring are needed and provide a tangible benefit to future lake and watershed management actions.



Pictured above are a series of underwater images collected from CLAD observation points in Lakewood in January of 2024.



Pictured above is a selection of underwater imagery paired with a CLAD biovolume survey of Bemus Point and Stow.

Alliance Committees

The Alliance extends its thanks to its many volunteers serving on its committees.

1. *Data Analysis and Research (DAR) Committee*

In 2020, the Alliance transitioned the former Scientific Review and Advisory Committee into a Data Analysis and Research (DAR) Committee. The DAR Committee is populated with individuals who have backgrounds in research, the natural sciences, engineering, data analysis, and/or other related technical fields and experience with the environmental factors impacting the health of Chautauqua Lake and its watershed. The purpose of the Committee is to provide scientific and technical input to the Board of Directors and Executive Director.

2. *Lake Management Committee*

Chair: Mike LaTone

The Lake Management Committee was formed with the purpose of coordinating in-lake maintenance, harmful algal bloom mitigation efforts, and potential future dredging efforts. This Committee is populated with key County personnel, municipal leaders, and executive directors and presidents of local lake managing organizations. These meetings bring together many of the stakeholders involved with lake maintenance in order to share information and plan and coordinate work.

3. *Watershed Management Committee*

Chair: Rob Yates

The Watershed Management Committee was also formed in late 2019 with the purpose of providing guidance and feedback regarding potential Alliance partnered watershed projects and to recommend watershed project ideas for grant submission that attempt to reduce the flow of nutrients and sediments from the watershed into Chautauqua Lake. The Committee is populated with local municipal leaders, highway and department of public works superintendents, and representatives from the Chautauqua Watershed Conservancy, Soil and Water Conservation District, County Watershed Coordinator, and County Health Department.

5/2023-5/2024 Board of Directors

<u>Director</u>	<u>Member Affiliation</u>
Bruce Erickson - Chair	Chautauqua Lake Association
Don Emhardt - Vice-Chair	Town of Chautauqua/Chautauqua Lake Association
Jan Bowman - Secretary	Chautauqua Watershed Conservancy
Ellen Barnes - Treasurer	Village of Lakewood
Martin Proctor	County of Chautauqua
Mike LaTone	Chautauqua Lake Partnership
JoDee Johnson	Chautauqua Lake Partnership
Paul (P.J.) Wendel, Jr.	County of Chautauqua (<i>Ex officio</i>)
Jim Andrews	Town of Busti
David Shepherd	Arnold Holmberg Foundation

Note: A maximum of 9 directors comprise the board of directors. Those listed above served for all or some portion of 2023. The first 9 directors listed in bold comprised the Alliance Board as of the date of this report.

Special Recognitions

The Alliance wishes to recognize that we as a community stand on the shoulders of those who have gone before us. Special appreciation to all those listed below and to many more.

CLMC participants: Linda Barber, Chuck Battaglia, Bill Boria, Craig Butler, Sally Carlson, Pierre Chagnon, Doug Champ, Jane Conroe, Rick Constantino, Fred Croscut, Bill Daily, Jeff Diers, Tom Erlandson, Mark Geise, Tom Geisler, Lyle Hajdu, Vince Horrigan, John Jablonski, Joe Johnson, Don McCord, Wade Morse, Debbie Naybor, Andrew Nixon, Karen Rine, Kevin Sanvidge, Kim Sherwood, Mark Stow, Art Webster, Dave Wilson, Tad Wright and Chris Yates

Leading the evolution from CLMC to an Alliance: Linda Barber, Pierre Chagnon, Don Emhardt, Mark Geise, Lyle Hajdu, Vince Horrigan, Don McCord, Dave McCoy, Randy Sweeney and Tad Wright.

Funders: The Lenna Foundation, Ralph C. Sheldon Foundation, Chautauqua Region Community Foundation, Gebbie Foundation, Holmberg Foundation, Hultquist Foundation, County of Chautauqua, and Private Contributors.

Appendix A

2023 May Member Meeting Minutes

Thursday, May 11, 2023 at 4:30 PM ET at The Lawson Center, 73 Lakeside Drive, Bemus Point, NY 14712 & via Zoom

Directors Present: Bruce Erickson, Janis Bowman, Mike LaTone, David Shepherd, Don Emhardt, Ellen Barnes, Martin Proctor

Directors Absent: Paul Wendel Jr., Jim Andrews

Staff in Attendance: Randall Perry – Alliance Executive Director, Taylor West – Alliance Project Manager, and Jay Young – Alliance Communications Coordinator

Others in Attendance: Linda Swanson – Sheldon Foundation; Craig Butler; Jane Conroe; and Howard Akin.

Member Representatives in Attendance: Becky Nystrom – Chautauqua Watershed Conservancy (CWC); John Ford – Chautauqua Lake Association; Mark Wenzler and Dick Gunnell – Chautauqua Institution; Dave McCoy and Pierre Chagnon – County of Chautauqua; Louise Ortman – Town of North Harmony; Jeff Molnar – Village of Bemus Point.

I. Call to Order

B. Erickson called the Annual May Member Meeting of the Chautauqua Lake and Watershed Management Alliance (Alliance) to order at 4:31 pm. A quorum of seven out of nine Board members were present at the start of the meeting.

II. Approval of the 2022 May Member Meeting Minutes

E. Barnes made a motion to approve the 2022 May Member Meeting Minutes. D. Emhardt seconded the motion, and it passed unanimously.

III. Secretary's Report on Notification and Quorum

J. Bowman indicated that written notification of the Annual Meeting was provided to all Members in accordance with the Alliance By-Laws on 3/10/23 and 5/5/23.

J. Bowman indicated that ballots were sent to all 22 current Alliance Members on 5/5/23, upon conclusion of the Member Nomination Window.

J. Bowman indicated that 20 ballots have been received, which constitutes a quorum per Alliance By-Laws.

J. Bowman indicated that the results have been tallied and independently checked by Alliance Staff.

IV. Election of Directors – Ballot Canvass and Report

B. Erickson asked if there were any additional ballots to be submitted by Members. None were noted. B. Erickson declared that voting is now closed and thanked all Members for their participation.

R. Perry thanked all of the nominating agencies and nominees. R. Perry indicated that based on the final vote counts, Jim Andrews (9 yes votes) and JoDee Johnson (13 yes votes), were elected to the Board. R. Perry indicated that P. Wendel will continue to serve in his *ex-officio* seat as County Executive.

B. Erickson thanked D. Shepherd for all of his work on the Alliance Board.

V. Presentation of 2022 Annual Report

R. Perry presented on the Alliance's 2022 Annual Report. R. Perry thanked The Lawson Center for offering to host the Alliance's Annual Meeting, and thanked the Board, County, Foundations, Alliance Members, and all those involved for their support. R. Perry thanked D. Shepherd for all of his work with the Alliance. A copy of the report and presentation is available on the Alliance's website.

B. Erickson thanked R. Perry for the presentation.

VI. Member Open Discussion

J. Molnar expressed thanks on behalf of the Village of Bemus Point to the Alliance for all of its work.

VII. Adjourn Annual Member Meeting

D. Emhardt made a motion to adjourn the May Member Meeting. E. Barnes seconded the motion, and it was passed unanimously. The meeting adjourned at 5:15 pm.

The Alliance Board of Directors passed a motion to approve these 05/11/23 Meeting Minutes on 5/9/24.