



Annual Report

2023-2024



ABOUT Seneca Lake **PURE WATERS** Association

Seneca Lake Pure Waters Association was incorporated in 1990 as a Section 501(c)3 nonprofit corporation dedicated to understanding, preserving, and improving Seneca Lake through research, public education, and advocacy.

During its 34-year history, the association has adapted its focus and addressed a variety of threats to the lake. Over the years, studies and informational efforts have covered a wide range of topics such as:

- Identifying various contamination and pollution threats
- Supporting research studies focusing on the lake's limnology (aquatic ecosystem), invasive species, and cyanobacteria
- Developing watershed management plans
- Informing municipal practices such as land use ordinances and uniform onsite wastewater management

Today, Seneca Lake Pure Waters is a vibrant and growing organization that is adding new, or improving existing, water quality programs each year. Monitoring programs leverage research partners to provide essential data on stream and lake nutrients as well as harmful algal blooms and invasive species. Pure Waters was also an important partner in the latest watershed management plan development process and is taking an active role in funding physical projects that protect the lake.

Pure Waters is committed to improving and adapting to meet the Seneca Lake watershed's future needs.



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senecalake.org

2023-2024 ASSOCIATION OFFICERS



PRESIDENT
William Roege



VICE PRESIDENT
Mark Petzold



SECRETARY
Ron Klinczar



TREASURER
Jill Ritter



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President's Message

Fiscal Year 2023-2024 was another successful year for the Seneca Lake Pure Waters Association. We maintained our existing water quality programs while adding two new initiatives focused on pollutants, expanding beyond our traditional emphasis on nutrient management.

Financially, the organization is in good health. Our regular fundraising efforts were significantly boosted by a major donation in memory of one of our founders, Howard Kimball. Additionally, we secured a generous grant from the Rose Foundation, which funded most of our water quality programs for this fiscal year. As we continue to grow, we recognize the need to enhance our efforts in expanding our membership and revenue base.

This year was also marked by significant transitions in our leadership team. Our previous Association Director left for new opportunities, and we were fortunate to find a highly experienced new Director who has quickly adapted and is driving our mission forward. The President's position also saw a change, with Dan Corbett stepping down after admirable service and myself stepping up to the role. We successfully recruited four new, engaged board members who began their tenure in fall 2023, and we are on track to bring in another strong cohort in 2024. This is crucial as we anticipate the departure of several experienced board members in fall 2024.

Given our lean team of just two staff members, we rely heavily on volunteers to conduct fieldwork and support our organizational operations. We are particularly in need of individuals with backgrounds in education, finance, legal, non-profit management, and human resources.

This report is filled with detailed information about our organization and the strides we are making toward our mission. I encourage you to read through the entire report to learn more about our wonderful initiatives and expanding partnerships.

There is always more work to be done than resources available, but we remain steadfast in our commitment to preserving, protecting, and promoting the water quality of Seneca Lake for current and future generations.

—William H. Roege, President



The Rich Adams

Memorial President's Award

Frank Case

This award is given annually to recognize and honor an association member, often a board member, who has made the most significant contributions to the goals and objectives of the association. This year, the Board of Directors honors Frank Case, retired board member for his contributions to the Association's operations.

Frank joined the Seneca Lake Pure Waters Board in the fall of 2016. As a farmer, town justice and former credit union board chair, Frank brought many skills and insights to the board. Soon

after joining the Board of Directors, Frank became the Association's Treasurer and was responsible for managing the organization's funds and resources for six years.

Frank retired from the Seneca Lake Pure Waters Board of Directors last year. However, he is still passionate about the water quality of Seneca Lake and continues to be an active member of the Sediment, Nutrient and Pollution Reduction committee.



The Mary Rose

Memorial Volunteer of the Year Award

Larry Martin

The Volunteer of the Year Award is meant to recognize longstanding involvement in one or more of Seneca Lake Pure Waters' citizen science or operating programs. The individual embodies attributes of a team player and goes beyond the normal effort to obtain meaningful results for the Seneca Lake Pure Waters Association mission. This year, the Association honors Larry Martin, longstanding board member and Seneca Lake Pure Waters volunteer.

Larry participates in five of the six major Seneca Lake Pure Waters water quality monitoring programs. Larry leads the Pure Waters' Citizens Statewide Lake Assessment Program (CSLAP), monitors for harmful algal blooms (HABs), works with the fisheries team during the Lake Trout Derby, monitors for invasive species, and leads the Keuka Outlet stream monitoring team.

Larry also sits on the Events Committee and because of his fun and personable

nature, he is our designated event raffle fundraiser volunteer and is always willing to lend a hand at fundraising and outreach events.

Beyond serving as an excellent Seneca Lake Pure Waters volunteer, Larry frequently helps local researchers with their work, providing access to his property, use of his dock, and has even helped track down lost research equipment on Seneca Lake. He also monitors Spotted Lanternfly traps at three locations for the Finger Lakes Partnership for Regional Invasive Species Management (PRISM).

Larry is an integral member and volunteer for the Seneca Lake Pure Waters Association, and it is most fitting that he receive this year's Volunteer of the Year Award.



Performance Overview

Seneca Lake Pure Waters continues to enhance and broaden its water quality initiatives. This year, the organization expanded the Sediment, Nutrient, and Pollution Reduction (SNPR) program, monitored lake conditions, supported research, and provided public education. Additionally, a new program was launched to take water samples to assess contaminants in the streams and lake, focusing on neonicotinoids and per- and polyfluoroalkyl substances (PFAS).

Currently, Seneca Lake Pure Waters employs one full-time and one part-time staff member. A significant portion of the workload is handled by board members and volunteers, which is unsustainable as the organization grows. To maintain and expand efforts, hiring more staff is essential, making increased revenue critical.

Recruiting qualified board members and volunteers remains a priority. In Fall 2023, four highly qualified board members joined Seneca Lake Pure Waters, and recruitment efforts continue into 2024.

The philanthropic landscape has shifted as the pandemic subsides, with individual contributions stabilizing over the past two years. The board and staff are actively pursuing grants, achieving some success. In June 2024, Seneca Lake Pure Waters began collaborating with a consultant to improve membership and fundraising processes.

Financially, Seneca Lake Pure Waters remains stable due to careful expense management and

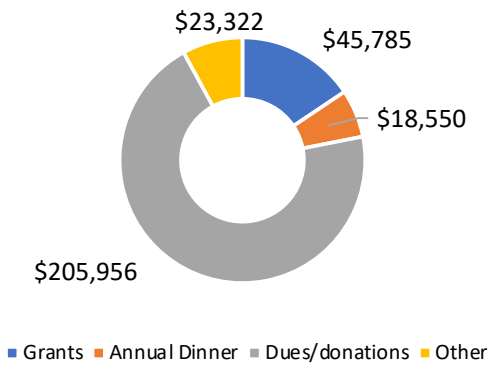
effective budgeting by the board and staff. The graphs below illustrate revenue sources and expense categories for the fiscal year. Notably, the value of our field volunteers' time—approximately \$70,000—and the substantial efforts of our board and operations committee volunteers are not reflected in the graphs.

The revenue graph highlights a significant increase in the dues/donations category, attributed to a \$100,000 gift in memory of one of the association's founders, Howard Kimball. Other fundraising sources were consistent with or below the previous year's levels, except for grants, which rose primarily due to a grant from the Rose Foundation for water quality programs.

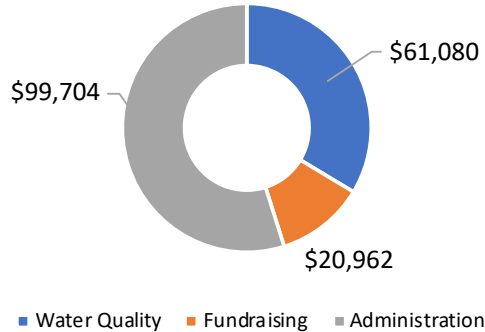
On the expense side, about \$45,000 of the administrative costs were allocated to labor supporting Water Quality and Fundraising efforts. More detailed financial information can be found in the financial section towards the end of the report.



FY 2023-2024 Revenue
\$293,614



FY 2023-2024 Expenses
\$181,747



Founders' Friend of Seneca Award

Howard Kimball

The Friend of Seneca award is given annually to recognize and honor an individual or organization whose efforts, outside of the Seneca Lake Pure Waters Association, have significant impact on protecting



Seneca Lake. This year, the Seneca Lake Pure Waters Board of Directors voted to re-name the award to honor the original board members and Founders of the Association. In recognition of his profound impact on the community and the environment, founding member, Howard Kimball, will be post-

humously honored with the "Founders' Friend of Seneca" award.

A pillar of the community, dedicated Seneca Lake resident and esteemed local businessman, Howard Kimball dedicated his life to service and philanthropy. In 1990, Howard spearheaded a remarkable initiative to establish an association solely

devoted to preserving the water quality of Seneca Lake. The outcome of this visionary endeavor was the birth of the Seneca Lake Pure Waters Association, officially incorporated in 1991 with an initial grant of \$70,000.

Now more than 30 years later, the Seneca Lake Pure Waters Association lives on in its mission to preserve and protect Seneca Lake, thanks to the dedication of the nine founding members and Howard Kimball. The Association continues to educate the public about threats to the lake and public health, diligently monitors water quality, and collaborates with research institutions to gain comprehensive insights into the health of Seneca Lake.

Howard Kimball Jr. will forever be honored and remembered for his impact on the community and environment, which will be felt for generations to come.

Water Quality programs

Sediment, Nutrient, and Pollution Reduction Program

Seneca Lake Pure Waters continues its commitment to maintaining water quality in the Seneca Lake watershed through the implementation of our Sediment, Nutrient, and Pollution Reduction Program (SNPR). Now in its fourth year, this program aims to finance projects that effectively reduce phosphorus entering tributary streams and the lake.

Phosphorus pollution often originates from unmanaged agricultural operations and excessive fertilizer use. Through the adoption of managed farmland practices, we have seen reductions in phosphorus inputs and agricultural stormwater runoff. However, addressing runoff on a scale as large as Seneca Lake requires meticulous planning and robust implementation strategies. County Soil and Water Conservation Districts (SWCDs) play a crucial role in executing projects that mitigate runoff and phosphorus levels. Our SNPR initiatives complement these efforts, particularly in environments where resources are constrained.

Selection Process

SNPR collaborates with five watershed SWCDs (Ontario, Yates, Schuyler, Seneca, and Chemung Counties), along with the Seneca Watershed Intermunicipal Organization (SWIO), to assist in funding projects. Proposals are solicited from these organizations, which may include projects already approved for funding pending a local dollar match from a funding agency.

Projects are evaluated by our SNPR committee based on several criteria:

- Alignment with our mission and the watershed 9 Element Plan
- Cost effectiveness
- Implementation timeline
- Benefit to the watershed

Projects that score well are recommended to our Board of Directors for approval.

Projects Funded in 2023

Over the past three years, SNPR has funded twelve projects, including sediment retention ponds, stream stabilization initiatives, cover crop planting, hydroseeding, and wetland reconnection efforts. 2023 marked a record year with the funding of six projects, which are detailed below:

- Ontario County SWCD, Armstrong Road Best Management Practices: Working with local landowners, this project involves installing and maintaining water and sediment control basins, water control structures, and enhancing wetlands. Construction is scheduled for this year.
- Ontario County SWCD, Castle Creek Stream Stabilization: Located in Geneva, this project stabilizes stream banks to prevent erosion. (See case study in the inset.)

- Schuyler County SWCD, Cover Crops: Using their interseeder machine, the district planted over 800 acres of cover crops on multiple large farms, improving soil health and reducing erosion.
- Schuyler County SWCD, Hydroseeding: Utilizing district resources, this project covered 34 miles of ditches and 32 acres of bare land with hydroseed mixture, enhancing soil stability.
- Seneca County SWCD, Tommy Creek: Near Lodi-Ovid Townline Road, this project involves constructing an upland stormwater retention pond and closing pipes to mitigate erosion and flooding impacts. Construction was completed in late spring 2024.
- Yates County SWCD, Scout Vineyards: Addressing erosion issues along a stream near NY 14, this project used Armormax fabric and stone armory to stabilize streambanks. Phase I stabilized approximately 300 feet of the stream, and Phase II completed the rest in spring 2024.

Impact of Our Actions

Collectively, these six projects are projected to prevent 1,000 tons of sediment, 1,200 pounds of phosphorus, and 2,000 pounds of nitrogen from entering the watershed annually. These efforts demonstrate significant progress towards improving the water quality of Seneca Lake.

CASE STUDY: Castle Creek Stabilization

Castle Creek is located in the City of Geneva and flows from the west into Seneca Lake. The streambank near Brook Street has been eroding. The Ontario County SWCD, in partnership with the Ontario County DPW and Pure Waters, used heavy stone to stabilize 150 feet of streambank preventing twenty-two tons of soil from eroding and entering the lake each year.



The photos show the project as completed in late summer 2023.



Nine Element Plan

The multi-year project to develop and obtain approvals for the Seneca Lake 9 Element (9E) Plan was completed in the summer of 2022. The plan identified sources and magnitudes of pollutants, established water quality targets, and defined a series of prioritized actions to achieve long-term goals.

The plan includes 71 actions that specify the pollutants addressed, applicable locations, pollutant load reductions, lead organizations and partners, estimated costs, potential funding sources, and priorities. These actions fall into six categories:

- 1. Hydrologic Resilience**
- 2. Best Management Practices (BMPs) on Working Landscapes**
- 3. Wastewater Management**
- 4. Invasive Species (IS) Management**
- 5. Local Laws**
- 6. Education, Outreach, Economic Development, and Additional Pollutants of Concern**

Many organizations are involved in implementing these actions. The Seneca Watershed Intermunicipal Organization (SWIO), municipal governments, and the five county Soil and Water Conservation Districts have primary responsibility for hydrologic resilience projects, BMP implementation, wastewater management improvements, and the adoption of local laws and regulations. The New York State Department of Environmental Conservation (NYS DEC) plays a key role in water permitting and enforcement. The Partnership for Regional Invasive Species Management (PRISM), managed by the Finger Lakes Institute, is the primary organization for invasive species management. The final category, encompassing Education and Outreach, involves many of the above organizations, with Seneca Lake Pure Waters playing a major role.

The association works diligently to keep members and lake stakeholders informed about current water quality issues, emerging threats, and ongoing efforts to address these issues. We

achieve this through our regular LakeWatch newsletters, email communications, social media, radio, and in-person and virtual education forums.

While we do not have primary responsibility for all actions, we strive to contribute meaningfully across all areas. Our Sediment, Nutrient, and Pollution Reduction (SNPR) team engages in evaluating and providing matching funds for erosion control (hydrologic resilience) projects and BMP implementation. Our Invasive Species team has secured grant funding for boat launch monitoring and education at locations not staffed by PRISM, and we also collaborate with PRISM on monitoring efforts. Additionally, we maintain ongoing project partnerships with academic institutions to better understand new and emerging pollutants of concern.

Seneca Lake Pure Waters will continue to focus on the 9E Plan and report on progress over time.



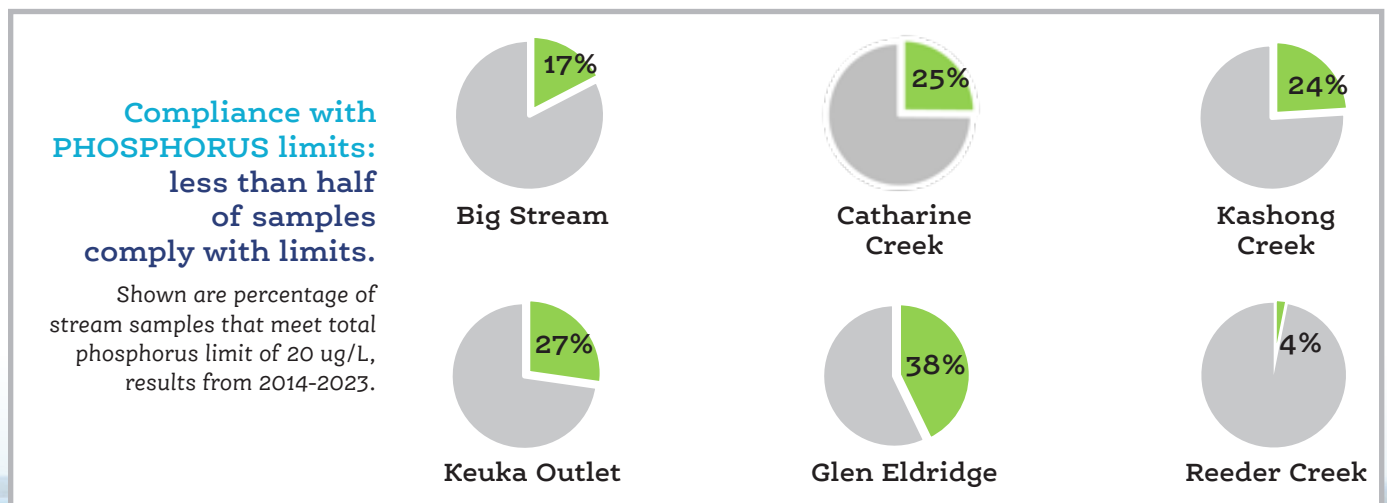
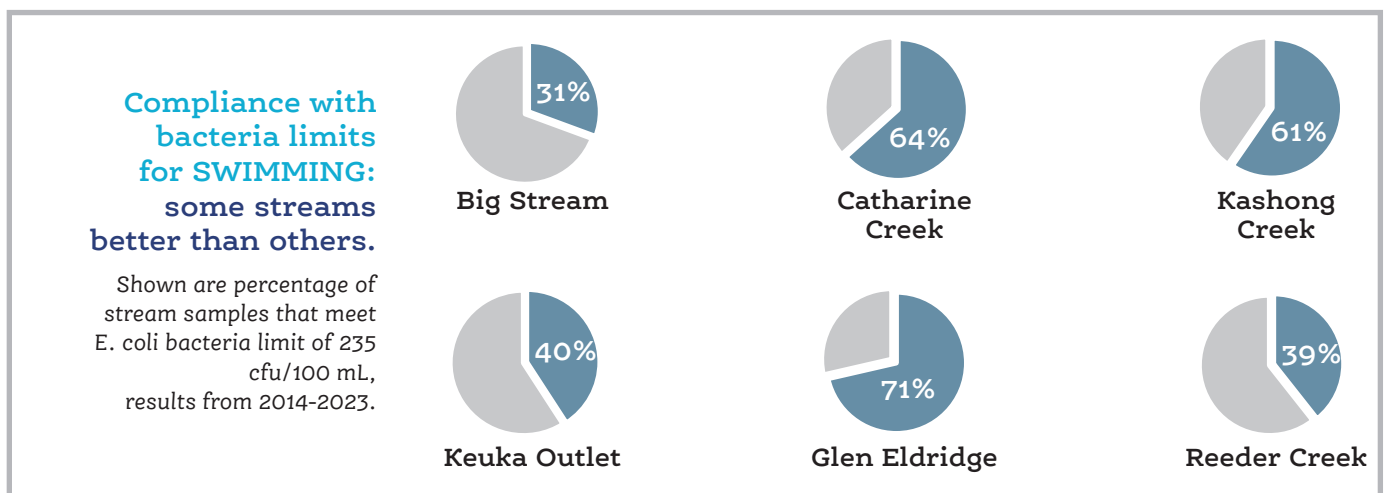
Stream Monitoring Program

Seneca Lake Pure Waters Association’s stream monitoring effort has completed more than a decade of monitoring, entering its eleventh consecutive year. Water quality monitoring is conducted in six streams or creeks that enter Seneca Lake. Volunteers collect water samples at multiple sampling sites at each stream including the mouth. In total, 17 locations in the six streams were monitored for one baseline and at least one high-water sampling event. Seneca Lake Pure Water’s partner in this monitoring, Community Science Institute of Ithaca, NY performed the sample analysis.

All streams show elevated bacteria and nutrient levels. Problems such as bank erosion and

upstream runoff increase nutrient and bacteria loading to the streams and to the Lake. Elevated levels of phosphorus can lead to algae over-growth and contribute to harmful algal blooms. High concentrations of E. coli bacteria found in streams are a sign of contamination from agricultural runoff, sanitary sewer or septic system discharges, which remain an ongoing concern.

SLPWA is continuing its sampling efforts into 2024 to better understand trends in Seneca Lake water quality, and that understanding can bring about further improvement actions. As always, we are thankful to the Seneca Lake Pure Waters stream team volunteers who make this sampling effort possible!



Citizen Statewide Lake Assessment Program

Seneca Lake Pure Waters has been participating in the Citizen Science Lake Assessment Program (CSLAP) since 2017, although the statewide program has been in place since 1986. This year, the statewide program is monitoring 183 lakes at 196 sites with the help of 600 volunteers. Seneca Lake relies on a dedicated group of 10 volunteers to gather water samples at four sites.

Currently, three of these sites are in “Class B” water (suitable for swimming and contact recreation activities) located in Geneva, Dresden, and Watkins Glen. The fourth historic sample location is in “Class A” water (suitable for drinking) mid-lake at Severne Point.

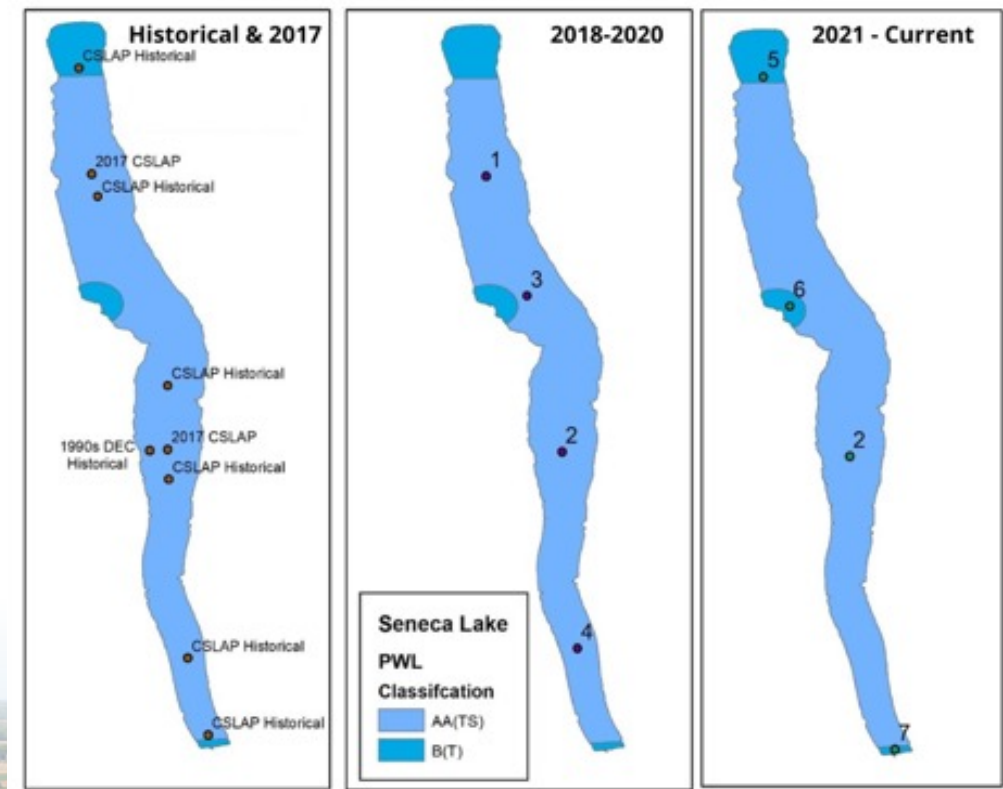
A volunteer team visits each site four times during the summer (16 trips overall) to take water samples at depths of 1.5 meters (4.9 feet) and 18 meters (59 feet). Additionally, volunteers use a Secchi disk, which has alternating black and white quadrants, to measure the lake’s water transparency. Temperature readings are also taken

to provide a snapshot of lake conditions at various locations.

Samples are filtered, frozen, and packaged for next-day shipment to the Upstate Freshwater Institute for lab analysis. The lab data on nutrient and biological factors help assess lake status over time, identifying trends and potential issues. The New York State Department of Environmental Conservation (NYS DEC) covers lab and transportation costs, with Seneca Lake Pure Waters contributing \$1,500 for testing and New York State Federation of Lake Associations (NYSFOLA) membership. The DEC compiles the data and provides a lake assessment report in the spring. Reports can be accessed through the Seneca Lake Pure Waters website at <https://senecalake.org/CSLAP>

The program is crucial for monitoring water quality and providing early warnings of emerging issues.

Seneca Lake CSLAP Sites



Contaminant Sampling

Seneca Lake Pure Waters expanded the stream testing program to include contaminants such as neonicotinoid pesticides. Neonicotinoids gained attention in 2023 with the passage of the Birds and the Bees Act. It is common practice for farmers to use seeds coated with neonic pesticides. A Cornell study in 2020 found that a plant would use less than 10 percent of the pesticide, with the rest dissolving into the environment. The New York State law will phase out the use of these coated seeds by 2029.

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Testing, made possible by a grant from the Rose Foundation, began in August 2023. Each stream tested showed some level of neonicotinoids. In some instances, the levels were above the EPA threshold for macroinvertebrate survival under chronic exposure.

During the summer of 2024, Seneca Lake Pure Waters volunteers will participate in the New York State Department of Environmental Conservation (DEC) Water Assessments by Volunteer Evaluators (WAVE) program to collect invertebrates from some of these streams to assess any impact.

Other contaminants in our lake still need to be studied. Micro- and nanoplastics are gaining national attention. Seneca Lake Pure Waters relies on your contributions and grants to expand our testing into these areas, to raise awareness, and to protect the lake.

Education & Outreach

While Seneca Lake Pure Waters had been actively engaged in educational programs for both members and the wider community, until now it lacked a formal Education Committee to coordinate these efforts and address gaps. This year marks a significant change, as we have established a formal Education Committee, which is now in its early stages.

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The committee conducted a comprehensive assessment of the association's educational activities, evaluating its audience, purpose, methods, and topics. It also benchmarked our educational initiatives against neighboring associations at Cayuga and Canandaigua Lakes. While our association conducts a comparable number of educational events as the others, it identified some differences and gaps. Notably, due to Covid-19, we have lately hosted fewer live mini-conferences where experts engage with a live audience in active discussions. We aim to increase these events. Two are scheduled for July and August 2024.

In addition, our involvement with local schools has been minimal compared to the robust programs at the Canandaigua Lake Watershed Association (CLWA). We will be working with CLWA to bring a similar program to Seneca Lake school systems.

In addition to our existing e-news channels, the *LakeWatch* newsletter, and Connections emails detailed in the Communications section, last year saw Seneca Lake Pure Waters host webinars and in-person seminars. Topics included: invasive species that threaten vegetation, such as the spotted lanternfly and hemlock woolly delgid; Lake-Friendly Living events in collaboration with the Finger Lakes Regional Watershed Alliance on native plants; and rain gardens, as well as volunteer training on Harmful Algae Blooms (HABs).

Lake Friendly Living

The Lake-Friendly Living (LFL) Committee welcomed new talent this year, strengthening the program. The new Association Director, Emily Debolt, previously led a similar initiative for the Lake George Association. Also new were Jake and Karen Welch, Charles Fausold, Stu Messur, and Kim Stanbro.

Our initial meetings focused on strategic planning for the next two years. We committed to energetically support the fourth annual LFL Month, held in May 2024 where we hosted presentations on the benefits of using native plants that better hold soil and require less water and promoted events offered by other lake associations in the Finger Lakes Lake-Friendly Living Coalition.

Additionally, we are investigating grant opportunities and identifying locations for installing native plantings along publicly owned shorelines or streams, or both. This initiative could serve as an educational resource for Seneca Pure Waters members and the public.

Moving forward, we will emphasize partnerships with local Master Gardener groups, Cornell Cooperative Extension, and the Finger Lakes Lake Friendly Living Coalition. As part of the coalition, we are exploring ways for municipalities in the Finger Lakes region to actively support the goals of Lake-Friendly Living. The aim is to control nutrients and pollutants that lead to unchecked weed growth, harmful algal blooms, and unhealthy water. The more we can spread the message that both individuals and governments must support water quality in the Finger Lakes, the better.



Harmful Algal Bloom Program

The primary focus of the Seneca Lake Pure Waters Harmful Algal Bloom (HAB) program is shoreline monitoring. The program began in 2014 with a call-in hotline and a couple of people responding to calls and quickly evolved into a mature program. In the summer of 2023, over 125 volunteers surveyed 84 zones, covering more than 80% of the shoreline, for ten weeks starting the first week of August.

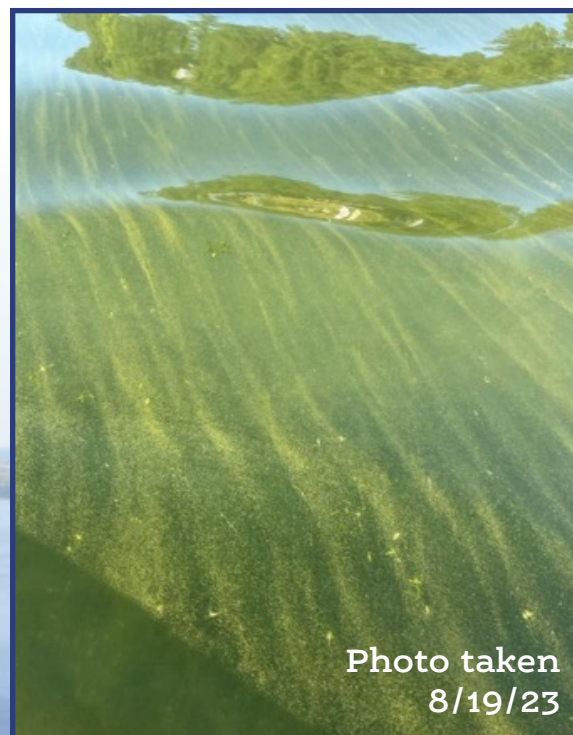
After surveying their shoreline zones, volunteers report via a special phone app whether they find a bloom or not. When they see a bloom, they describe it and attach photos. The Seneca Lake Pure Waters program no longer collects samples, so the photos are used to confirm the blooms. If a bloom is detected, a Seneca Lake Pure Waters HAB team member inputs the data into the New York State Department of Environmental Conservation (NYS DEC) HAB reporting system.

In 2023, we started offering a “lake alert” text system to notify people when a HAB has been spotted. Approximately 630 people signed up for this system. Since HABs can occur in multiple locations and at different times throughout the day, only one text per day is sent out. The idea is that once one HAB is spotted, everyone should be on the lookout in their area.

In 2023, we recorded the earliest bloom ever reported, on July 28th. It was a very warm period with little wind, and numerous blooms were reported from that day through August 3rd. The remainder of August was quiet, with the next bloom reported on September 9th. In total, 54 blooms were confirmed, and 21 reports were considered suspicious. A total of 642 surveys were submitted.

Overall, 2023 was an average year, and Seneca Lake experienced fewer blooms than the peak year of 2019, when 130 blooms were reported. Recent years’ totals are: 2019 – 130, 2020 – 15, 2021 – 72, 2022 – 49.

The Seneca Lake Pure Waters webpage (<https://senecalake.org/Blooms>) contains information about the HABs program and provides links for more details.



Invasive Species PRISM

In fiscal year 2023–2024, Seneca Lake Pure Waters expanded its efforts to characterize both invasive land-based and aquatic species in and around Seneca Lake. We participated in the New York State Partnership for Regional Invasive Species Management (PRISM) program, funded and managed through the Finger Lakes Institute (FLI) at Hobart and William Smith Colleges.

The Finger Lakes PRISM program focuses on identifying invasive insects such as the hemlock woolly adelgid (HWA), which attacks Hemlock trees, and the spotted lanternfly, which attacks the tree-of-heaven and vineyards. Seneca Lake Pure Waters hosted a webinar presented by Cari Marschner of the New York State Hemlock Initiative (NYSHI) to educate members on the HWA's impact and methods to treat individual trees. Cari also described the initial success of biological control measures using *Laricobius nigrinus* beetles, natural predators of the HWA in western North America.

The Macrophyte Survey Program (MSP) utilizes Seneca Lake Pure Waters citizen scientists to identify invasive aquatic plants of concern. Seneca Lake Pure Waters recruits volunteers, while FLI PRISM provides the tools and materials needed for “rake toss” surveys and plant identification. Volunteers conduct surveys bi-weekly throughout the growing season and report their findings to the PRISM staff, who then collate, analyze, and publish the data.

MSP Findings in 2023 include:

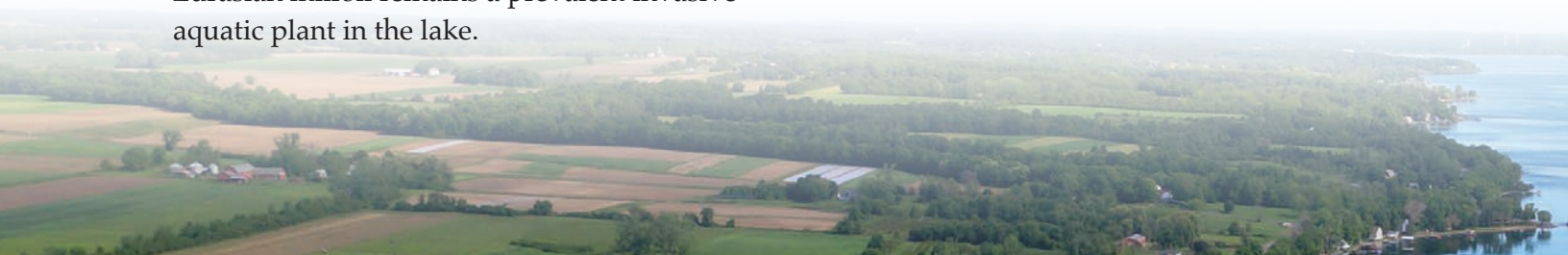
- No hydrilla. Hydrilla is one of the most aggressive invasive aquatic plants threatening our lake. It is present in Cayuga Lake, where a multimillion-dollar eradication effort has been underway since 2011.
- Starry stonewort, an invasive species of significant concern, was found in a limited area in the northwest region of the lake. It is a problem in Keuka Lake.
- Eurasian milfoil remains a prevalent invasive aquatic plant in the lake.

In 2024, the MSP will continue to emphasize monitoring three invasive plants (hydrilla, starry stonewort, and water chestnut) and their potential spread. Management and control efforts may be initiated based on survey results.

Seneca Lake Pure Waters received a \$2,285 grant from the Great Lakes Commission to conduct an Aquatic Invasive Species (AIS) “Landing Blitz” during Summer 2023. The Blitz aims to raise awareness among fishermen, boaters, and the public about the threat of AIS and the importance of prevention measures, a program common across the entire Great Lakes watershed. Seneca Lake Pure Waters volunteers provided AIS information, surveyed boats and trailers, and distributed flyers at Severne Point, Sampson Marina, and Lodi State Park—sites generally not covered by the PRISM Seneca Lake Boat Steward Program.

In Spring 2024, Seneca Lake Pure Waters received another grant of \$8,940 from the Great Lakes Commission to implement a 3-stage program in summer 2024:

1. Provide “Clean, Drain, Dry” awareness rack cards and handouts.
2. Conduct an AIS Landing Blitz at Severne Point and Lodi State Park.
3. Provide additional funding for expanded coverage by PRISM Boat Stewards at critical boat launches throughout the summer.



Lake Level Monitoring

The Lake Level Monitoring Committee continues to monitor the water level of Seneca Lake and is following the execution of recommendations from the Governor’s “Upstate New York Flood Mitigation Task Force Report,” published in July 2023.

The figure below shows the Seneca Lake levels for 2022, 2023, and 2024 as provided by <https://seneca.uslakes.info/Level.asp>. The control levels are nominally 446 feet between April and November, and slightly lower at 445 feet in the winter months to provide more reserve capacity for snowmelt. For reference, the “Minor Flood Damage” level is defined at about 448 feet. More detailed information on lake level control and monitoring is available on the Seneca Lake Pure Waters website under the Citizen Science option at <https://senecalake.org/Lake-Level>

The Flood Mitigation Task Force report provides an excellent overview of the flooding issues related to the Oswego River Basin, into which Seneca Lake drains (<https://hinckley.canals.ny.gov/news/Task-Force.html>). Among the recommendations pertinent to Seneca Lake are the development of a watershed model to help predict the impact of water release from various control points and the formation of a governing board to coordinate these control points. The state is also considering adding more flood-plains to help buffer floods by recovering former wetlands that were converted to farmland decades ago. One Task Force recommendation currently on hold is to consider changing the control levels for Seneca Lake to allow more storage capacity during times of flooding.



Some committee members also measure rainfall amounts and submit their observations to the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) website daily. These observations are immediately available to the public via maps and data analysis tools, and to data users through the CoCoRaHS Web API. Data collected by CoCoRaHS volunteers are used by many professionals across the country, including weather forecasters, hydrologists, water managers, researchers, agriculturists, and climatologists.

Seneca Lake Fishery Initiatives

The Finger Lakes Institute (FLI) and Seneca Lake Pure Waters set up dissection tables at Stivers Marina and Clute Park for the third consecutive year to collect data on the Seneca Lake fishery. In total, 27 lake trout, 15 brown trout, 12 rainbow trout, and four landlocked salmon were collected and frozen at FLI for year-round research.

The FLI team, comprising Lisa Cleckner (FLI), Susan Cushman (Hobart and William Smith Colleges), and Roxanne Razavi (SUNY College of Environmental Science and Forestry), is currently investigating three aspects of fish health:

1. **Diet:** This involves examining stomach contents (recent diet) and conducting stable isotope analysis (long-term diet).
2. **Mercury Levels:** Flesh samples are tested to determine mercury (Hg) levels.
3. **PFAS Levels:** Per- and polyfluoroalkyl substances (PFAS) levels are also tested using flesh samples. PFAS are man-made chemicals associated with various health concerns, including increased cholesterol, liver enzyme changes, and potential cancer risks.

A FLI study, using 29 lake trout from the 2022 Derby, showed an average PFAS concentration of 13,100 parts per trillion, significantly higher than other Finger Lakes. In 2024, FLI and Seneca Lake Pure Waters began testing creek water to identify sources of PFAS contamination.

In contrast, the EPA lowered its drinking water concentration recommendations for PFAS to 4 parts per trillion in 2024. The New York State Department of Health (DOH) recommends that the general population consume no more than four meals per month of lake trout, while sensitive populations like children and pregnant women should limit consumption to one meal per month.

The Round Goby, a primary bait fish for Trout in Cayuga Lake, has been detected in Seneca Lake. After processing 50% of the 2022 Derby fish, FLI found no Gobies in the collected stomachs.

Other notable activities on Seneca Lake this year include:

- A June 2023 alewife die-off attributed to parasites and bacteria, according to the DEC.
- Application of lampricide by the DEC to Catherine Creek and Keuka Outlet in early June 2024 to control lamprey populations preying on Trout; this application occurs every three years.
- DEC testing in Kendaia Creek revealed PFOS concentrations in black nose dace and creek chub ranging from 81,000 ppt to 374,000 ppt; initial testing was conducted in 2019, with results not published until 2023. Kendaia Creek flows through the Army Depot, a known source of PFAS contamination.



Seneca Lake Pure Waters eagerly awaits the revised DEC Fishery Management Plan for Seneca Lake, which has been under review at the Albany DEC Headquarters for the past two years.

Overall, fishing remains challenging on Seneca Lake compared to other Finger Lakes, particularly Cayuga Lake. Challenges include an abundance of alewife bait fish, which contain an enzyme causing Early Mortality Syndrome in young lake trout.

Additionally, lampreys continue to impact trout populations. While the DEC increased lake trout stocking numbers from an average of 40,000 (2010–2019) to 60,000 (2020–2022), Seneca still trails Cayuga, which averaged 70,000 over the same period despite being 40 percent smaller in volume (2.5 vs. 4.2 million gallons). The wild reproduction rate of lake trout in Seneca has declined to 12 percent (2020 Netting Survey) from 60 percent in the mid-2000s.

For more detailed DEC reports and the 2023 Angler Diary, visit:
<https://dec.ny.gov/things-to-do/freshwater-fishing/fisheries-management-research/region-8>

Political Action

Jake Welch, a former president of Seneca Lake Pure Waters, now wears two hats. He leads our political action committee and serves as President of the Finger Lakes Regional Watershed Alliance (FLRWA), representing all eleven Finger Lakes.

The committee, in collaboration with FLRWA, actively participated and successfully supported the 2023 passage of the Birds and Bees Act, signed into law by Governor Hochul. This legislation will significantly restrict the use of neonicotinoid pesticides as seed coatings. Approximately ninety percent of these coatings wash off, posing risks as a neurotoxin to small terrestrial and aquatic life forms. Moreover, these toxins have been found to pose health risks to humans, especially given that our lake serves as a drinking source for tens of thousands.

In a compromise to facilitate the passage of one of the first bills of its kind, farmers have been granted until 2029 to explore safer alternatives for insect control. The committee anticipates further progress through additional environmental bills currently under consideration in Albany, aimed at enhancing water quality across the Finger Lakes. It's encouraging to witness much-needed attention being directed toward these vital issues.

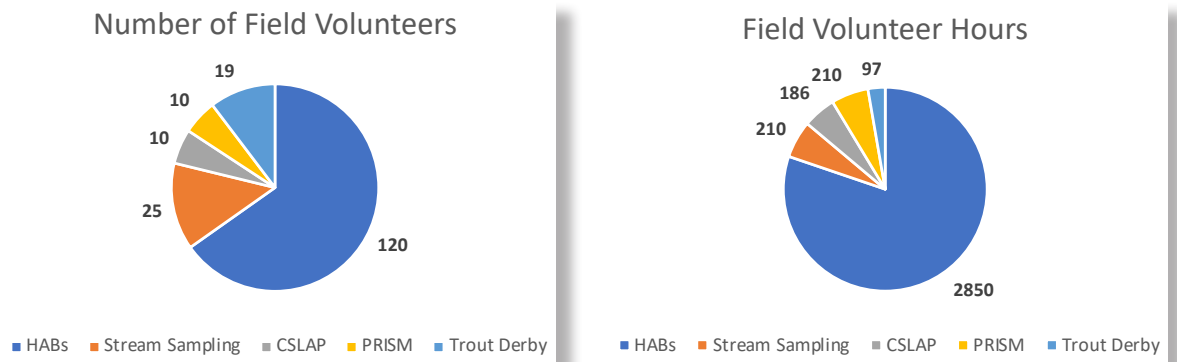
In a compromise to facilitate the passage of one of the first bills of its kind, farmers have been granted until 2029 to explore safer alternatives for insect control.

Volunteers

Volunteers are the key to most Pure Waters water quality programs.

In this fiscal year, over 180 volunteers contributed over 3,400 hours of their time working on water quality monitoring and related programs alone. The 3,400 hours equates to \$68,000.

These two graphs show the estimated water quality volunteer contributions by programs.



In addition to volunteers in the field, volunteers are a critical part of managing the organization. The 20 board members and many other non-board volunteers contribute their time and talents to serve on one or more operations committees or water quality programs as described in this report.

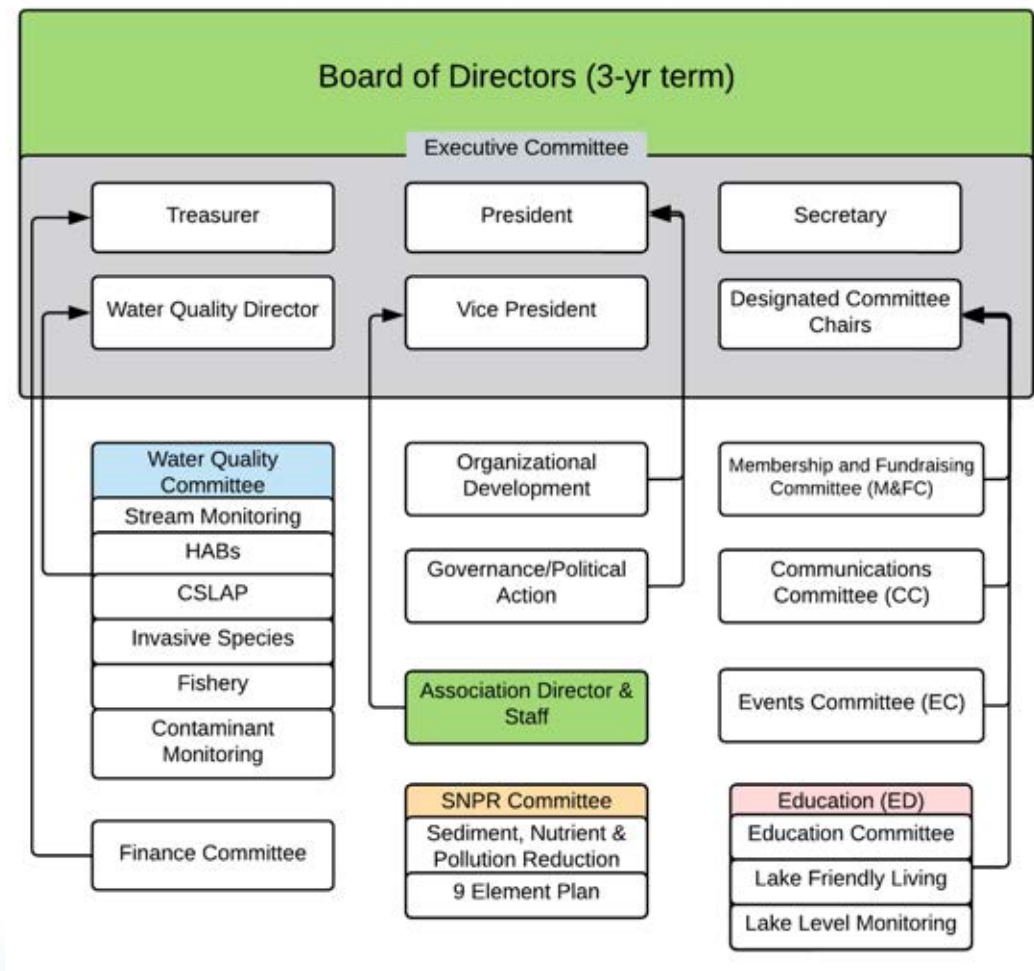
Without these many thousands of hours of their commitment (well over \$100,000 equivalent), the organization would not be able to accomplish all that it does.

Association Operations and Committees

The figure below represents the Seneca Lake Pure Waters governance structure. The board and officers are per the bylaws. The Executive Committee has been designated and the boxes below show the many committees and programs that are part of the organization. Each has a path for representation on the Executive Committee and the Board.

Seneca Pure Waters Organization 2023-2024

July 3, 2024



Financial Report

Seneca Lake Pure Waters continues to demonstrate strong financial health, with assets growing alongside our expanding portfolio of programs. Despite budgeting for a deficit, Fiscal Year 2023–2024 concluded with a surplus, largely thanks to a generous \$100,000 donation from the Tripp Foundation in memory of Howard Kimball, one of our founding members.

Our board takes a conservative approach to budgeting expenses, and our team meticulously manages costs throughout the year. As a result, expenses have consistently come in below budget, contributing to positive cash flow. However, it’s important to note that approximately \$60,000 in ongoing program expenses will carry over into the next fiscal year, making this year’s surplus appear larger than it truly is.

The fiscal year runs from June 1st to May 31st. The tables that follow show the financial status of the Association as of May 31, 2024.

Balance Sheet

	2022–2023	2022–2023
ASSETS		
Bank Accounts	\$341,705.06	\$230,924.93
Accounts Receivable	--	--
Other Current Assets	\$2,384.42	\$3,207.52f
Fixed Assets	\$36,999.30	\$37,350.42
TOTALS	\$381,088.78	\$271,482.87
LIABILITIES & EQUITY		
Current Liabilities	\$91.83	\$2,352.90
Restricted & Unrestricted Funds	\$269,129.97	\$255,757.47
Net Income	\$111,866.98	\$13,372.50
TOTAL LIABILITY AND EQUITY	\$381,088.78	\$271,482.87

Revenue & Expense Summary

	2023–2024	2022–2023
REVENUE		
Grants	\$45,785.00	\$6,542.95
Dues/Donations	\$205,956.50	\$125,714.99
Fundraising	\$26,560.03	\$38,024.00
Other	\$15,312.02	\$2,285.24
TOTAL INCOME	\$293,613.55	\$172,567.18
EXPENSES		
Water Quality Programs	\$61,080.48	\$54,962.24
Membership/Fundraising	\$20,961.86	\$17,929.88
Administration	\$99,704.23	\$86,302.56
TOTAL EXPENSES	\$181,746.57	\$159,194.68

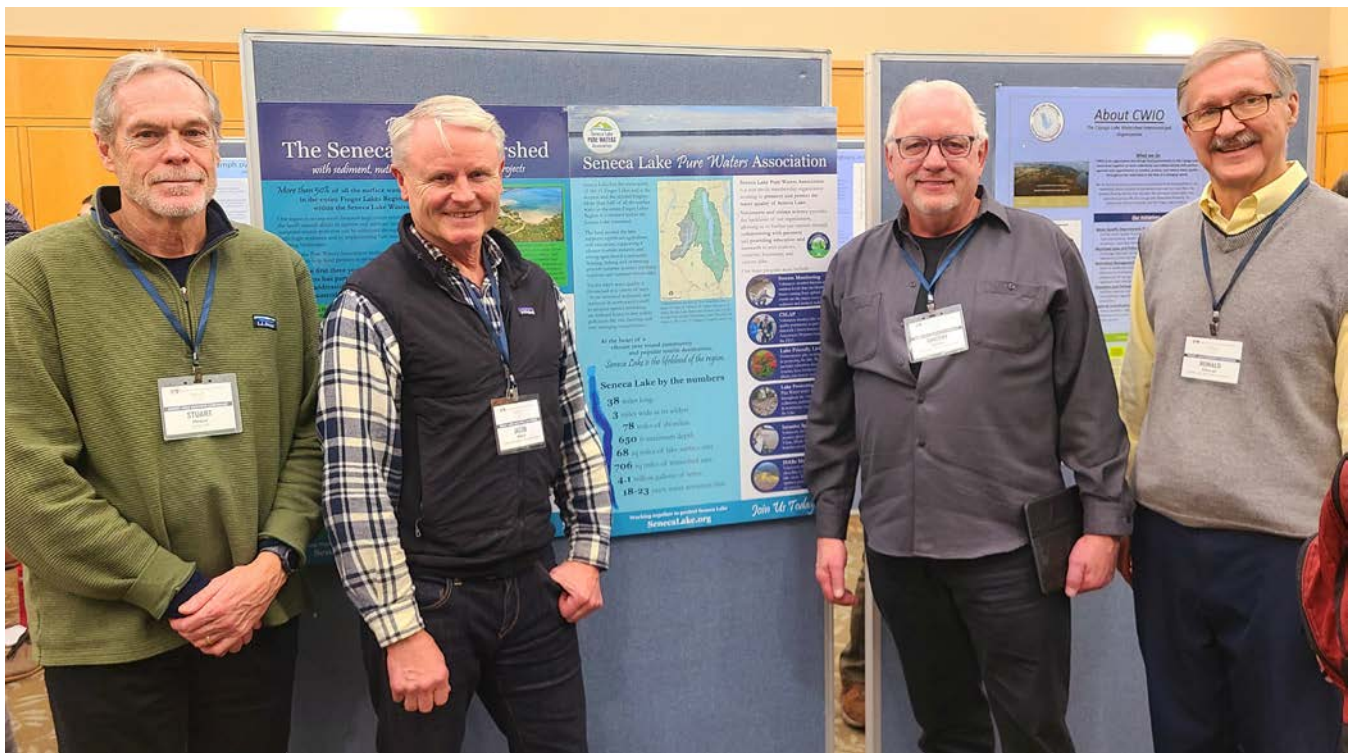
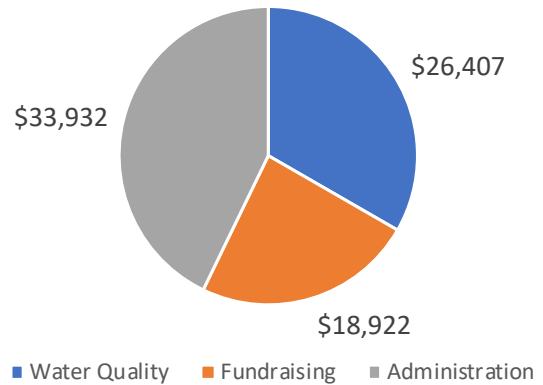


Total labor costs (salary and benefits) were \$79,260.91. Pure Waters budgets for and tracks labor in the administrative category because it is hard to forecast labor for each program separately. However, labor is tracked in the timekeeping system by program area. The graph below shows the breakout of the labor hour costs.

Once labor cost adjustments are made in each expense category from the Revenue and Expense Summary, the updated totals are:

- Water Quality - \$87,487.85 (48.14%)
- Membership and Fundraising - \$39,883.74 (21.94%)
- Administration - \$54,374.98 (29.92%).

2023-2024 Labor Costs Breakout



Board members at the Finger Lakes Institute Research Conference in January



Fundraising & Membership

Association membership fell slightly to 836 active members at the end of the fiscal year. Business memberships accounted for 76 of those active memberships.

The table below illustrates the number of members in each membership category.

MEMBERSHIP TIER	#	BUSINESS MEMBERSHIP TIER	#	GIVING LEVEL
Friend (individual)	139			\$30
Supporter	259			\$50
Partner	249	Bronze	59	\$100
Protector	64	Silver	12	\$250
Lake Defender	21	Gold	5	\$500
Watershed Benefactor	22	Platinum	1	\$1,000
Community Partner	5			
TOTAL	759		77	

TABLE 1: Association membership as of June 7, 2024

Seneca Lake Pure Waters had a reasonably successful fundraising year, receiving a very generous \$100,000 donation from the Tripp Foundation, \$43,500 from the Rose Foundation, \$2,285 in other grants, and raising nearly \$40,000 during the Annual Appeal.

Additionally, Seneca Lake Pure Waters benefited from partnerships with local organizations, receiving over \$5,000 from an auction conducted by the Seneca Lake Wine Trail and about \$2,500 from the Linden Street Wine Series run by businesses in Geneva. For the coming fiscal year, we are excited to partner with a collaboration of local brewers to receive proceeds from a special “PURE Brew” that celebrates Seneca Lake, which will be sold by many of our local breweries. We aim to continue and expand these collaborations in the coming years.

To sustain and grow our programs and staff, the Fundraising and Membership Committee will continue its efforts to increase membership and revenues. In June 2024, we hired a consultant to help us improve our fundraising efforts and membership levels.



Communications

The Communications Committee is dedicated to conducting outreach and raising awareness in support of the Education Committee, water quality programs, and the overall promotion of the Seneca Lake Pure Waters brand.

The committee utilizes a comprehensive suite of communication tools to advance the Seneca Lake Pure Waters mission, including:

- **Quarterly *LakeWatch* Newsletter:** This newsletter contains timely articles covering our programs, water quality information, and organizational updates. It is emailed monthly and provides updates on current events in addition to other topics of interest.
- **Bloom Watch Newsletter:** Published weekly during the summer season, this newsletter supports the Harmful Algal Bloom (HAB) program. It informs the public about HAB sightings on the lake and includes other relevant articles of public interest.
- **Podcasts with Local Radio:** Seneca Lake Pure Waters has a monthly segment with a popular local radio host. The committee plans the topic schedule and ensures a board member supports each session.
- **Social Media:** Seneca Lake Pure Waters maintains an active presence on Facebook, Instagram, and YouTube, posting educational and event-related information multiple times per week. The team reviews analytics to refine messages and improve engagement.
- **Press Releases:** The committee works on planning and writing regular press releases that are consistently picked up by local media, proving to be an effective way to publicize our activities.

The committee will continue to explore new ways to broaden our audience and support our mission.

Events

The Events Committee focused primarily on fundraising this fiscal year. The highlight was the annual fundraising gala dinner in August 2023 at the 41 Lakefront Hotel in Geneva. Entertainment was provided by a mystery theater group, which engaged the audience with great participation. The team did an outstanding job organizing and executing this event.

Additionally, the committee planned the Annual Meeting in September 2023 at Climbing Bines Hop Farm and Brewery in Penn Yan. This event was well attended, with over 100 members participating. The “state of the lake” presentation sparked a lively Q&A session, providing valuable insights and information.

Due to the gap in hiring a new Association Director, the committee did not conduct the planned virtual auction this year. However, they managed to organize several smaller fundraising events with local business partners.

In Spring 2023, the committee initiated a new project to gather advertisements for an annual program book to be used at all events and

distributed widely throughout the year. Previous efforts supported only the summer gala, but this first-year endeavor proved very successful. The second-year effort was conducted in Spring 2024. The booklet also includes articles about the association, and we aim to expand this project in the coming years.

...the committee initiated a new project to gather advertisements for an annual program book to be used at all events and distributed widely throughout the year.

Organization Development

The Organization Development Committee continues to focus on ensuring a steady pipeline of talent is being recruited at all levels of Seneca Lake Pure Waters to meet the ever-increasing resource needs of the organization. The Committee also works to ensure a wide variety of general personnel-related activities are documented and implemented per annual milestone schedules. Major accomplishments for this Committee include the following:

- Recruited four very talented directors for the Board
- Coordinated efforts to recruit and hire a new and very talented Association Director
- Screened over 17 new volunteers and placed many of the individuals on Water Quality Teams or Operations Committees
- Coordinated the Awards process for three major Seneca Lake Pure Waters Recognition Awards (Rich Adams President Award, Friends of Seneca Award, and Mary Rose Volunteer of the Year Award)
- Refined a standard methodology and template form called Standard Operating Procedure (SOP) for capturing details around critical processes utilized by the Committee. SOPs were developed for awards, recruiting volunteers and recruiting board members.
- Developed a master schedule outlining when all critical tasks should be completed during the calendar year
- Refreshed and enhanced role and responsibility documentation for the Board of Directors and the Executive Committee
- Updated and delivered an orientation training program for newly recruited Board members

As outlined above, the Organization Development Committee has continued to expand the scope of activities required to recruit, train and recognize the breadth of talent required to deliver Seneca Lake Pure Water's mission to preserve and protect Seneca Lake.



Board of Directors

At the end of the fiscal year, the Board consisted of 20 members. Four new members joined in Fall 2023. The board is authorized up to 30 directors and the Organizational Development Committee is aggressively recruiting additional directors. Having enough directors and other committee volunteers is critical to accomplish the Seneca Lake Pure Waters mission.

CLASS OF 2024 (8)

Steve Bromka (Romulus)
Thomas Burrall (Geneva)
Dan Corbett (Himrod)
Frank DiOrio (Himrod)
Ron Klinczar (Hector)
William McAdoo (Geneva)
Jody Tyler (Keuka Park)
Jacob Welch (Himrod)

CLASS OF 2025 (7)

Kelly Coughlin (Geneva)
Peggy Focarino (Penn Yan)
Larry Martin (Penn Yan)
Bill Roege (Penn Yan)
Mark Gibson (Himrod)
Mark Petzold (Geneva)
Jill Ritter (Geneva)

CLASS OF 2026 (5)

Charles Fausold (Valois)
Timothy Johnson (Corning)
James McGinnis (Watkins Glen)
Stuart Messur (Geneva)
Mark Swinerton (Hector)





**Seneca Lake PURE WATERS Association is here to
PRESERVE, PROTECT, AND PROMOTE
Seneca Lake water quality
for ALL who have the privilege of knowing it.**

**As a non-profit organization, Pure Waters depends on
memberships and donations to build programs that work
to resolve the diverse set of threats that Seneca Lake
and its watershed residents face.**

Learn more about what you can do to help.

senecalake.org

