

*Preserve, Protect, and  
Promote Seneca Lake  
Water Quality*



*Seneca Lake Pure Waters  
Association*

# 2021 ANNUAL REPORT

---

JUNE 2020-MAY 2021 FISCAL YEAR

# About PURE WATERS

---

## 2020 - 2021 Association Officers

**President**  
Jacob Welch

**Vice President -  
*Water Quality***  
Dan Corbett

**Vice President -  
*Operations***  
Frank DiOrio

**Secretary**  
John Cooley

**Treasurer**  
Frank Case

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.

In its 30-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 varied contamination and pollution threats
- Supporting research studies such as 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 is also an important partner in the latest watershed management plan development process.

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

**Vision:**  
**Pure Waters is the Premier Lake Association in the State**



# Table of CONTENTS

---

## **01 - President's Message**

## **04 - Performance Overview**

## **06 - Strategic Planning Update**

## **07 - Water Quality Programs**

- Watershed Management Plan Development
- Lake Friendly Living
- Stream Monitoring
- Citizen Statewide Lake Assessment Program
- Harmful Algal Blooms
- Invasive Species PRISM

## **18 - Volunteers**

## **18 - Advocacy Activities**

## **19 - Association Operations**

- Fundraising and Membership
- Communications
- Events
- Financial Report
- Governance

## **Back Cover - Board of Directors**





Association President,  
Jacob Welch

## PRESIDENT'S MESSAGE

Over this past year we, like the rest of the planet, were saddled with a pandemic situation resulting in the loss of our annual dinner, one of our largest fundraising events.

I am proud to report that we got through Covid-19 challenges with flying colors. We were able to do all that by boosting fundraising efforts which included receiving significant contributions from some very special people. My thanks to all of you who got us through and, to such a degree, that not one of our water quality programs has suffered.

Without question, the largest news story this year was the expansion of bitcoin mining at the Greenidge facility in Dresden, adding some 21,000 more computers to the 9,000 in use. This would foreseeably produce more turbine generated heat for the extra electrical load which gets dissipated by millions of gallons of water drawn from and put back into the lake. Our efforts helped to move up a thermal study ordered way back in 2017 and furthermore bring a lot more NYSDEC oversight in how that will all occur.

We have also done well with other projects designed to protect our lake including our participation with NYSDEC PRISM to control various invasive species from getting into our lake. We, as well, not only expanded our own Lake Friendly Living Program, but also helped bring it to the other eight Finger Lakes. In fact, this program is now on the website of the Finger Lakes Regional Watershed Alliance, allowing those on our neighboring lakes to join in this grass roots effort in weed and HABs control.

We have continued to nurture other key partnerships. This would include the preparation of and the assistance with a "fair share" program for the Seneca Watershed Intermunicipal Organization (SWIO) asking lake towns and counties to support the ongoing salary of Ian Smith, our Lake Steward. Ian Smith is a huge resource as far as (1) knowing the problems of our lake and (2) leading the Nine Element Plan implementation effort. We need him to stay.



# PRESIDENT'S MESSAGE, CONTINUED

---

On other fronts, we held a meeting with Tara Bloom, the new head of NYS DEC Region 8. We discussed the decrease in the fish population in the lake and various nutrient loading concerns. We also have another meeting scheduled with the DEC as of writing this update.

Last year we were most fortunate in having significant winds and very few harmful algal blooms. Unfortunately, we did have reports of some serious weed growth, especially at the North end of the lake. We should not be deceived by one good year. Our old "friends", rising temperature and nutrient loading, are still at large doing bad things to our lake. While climate warming is here to stay, we can control what comes down our streams affecting weed as well as algal growth.

I am really looking forward to a promising upcoming year. The Nine Element Plan is working its way to completion. Having such a plan is critical to achieving the large federal and state grants necessary to control our nutrient loading situation. We are also on the cusp of launching our own "Sediment Nutrient Reduction Program". Much of what we do there, to reduce runoff from streams and ditches, can be used as a model for what can be accomplished on a much grander scale with the Nine Element Plan.

As I have mentioned in previous messages, we are a volunteer organization and can only operate to protect our lake through your support. If you are a member please continue as such. If you know of a friend or neighbor who is also interested in preserving our lake, please get them to go to our website and join. Our lake truly is a slice of heaven. Yet, with global warming and threats from nutrient loading afoot, it will not continue to be such without taking necessary steps now and while we can. Our lake scientists tell us that if our lake goes green it could take 20 or 30 years to remedy the situation. We must stand united to make sure that never happens.

Finally, I would be remiss not to mention the hundreds of volunteers who so graciously provide countless hours in our efforts to protect and preserve big old Seneca Lake. Again, thank you for all your support.

Jake Welch,  
President of Seneca Lake Pure Waters Association

## **Tribute to Mary Anne Kowalski (1946-2021)**

---

Mary Anne Kowalski worked tirelessly to safeguard Seneca Lake and we are deeply grateful. Seneca Lake Pure Waters Association would not be where it is today without Mary Anne. She was one of a few people who restarted Pure Waters after the organization had gone through some difficult times. She was on the board of directors from 2008 through 2016, and served as President from 2011 through 2016.

In 2013, Pure Waters received the Region II EPA Environmental Quality Award for its achievements in protecting public health and the environment. This was due, in large part, to Mary Anne's efforts.

Under Mary Anne's direction, Pure Waters challenged the State Department of Health for its failure to release documents concerning health impacts of natural gas fracking. The organization also filed to be a petitioner in the challenge against Liquid Petroleum Gas (LPG) storage in salt caverns under Seneca Lake with Mary Anne's leadership. She worked with the Pure Waters board to bring expert testimony and facts to light that served well in the effort to prevent further gas storage.

Mary Anne initiated and grew the Pure Waters stream monitoring program with her dedication and direction. This program's data supported the petition that led to Reeder Creek being placed on the US Environmental Protection Agency's Impaired Water Body list, which has led to subsequent studies and influenced New York State Department of Environmental Conservation permitting decisions. The Pure Waters Harmful Algal Bloom (HABs) monitoring program, which has grown to be a model for the Finger Lakes Region, also began during Mary Anne's tenure.

Mary Anne was a tenacious advocate for Seneca Lake and her sudden passing is a huge loss for the whole community. Her legacy will live on through the many people she inspired.



# OUR PERFORMANCE OVERVIEW

The SARS-CoV-2 virus and resulting COVID-19 pandemic weighed heavily on the association's planning in Spring 2020. The board developed a conservative budget and annual plan not knowing how fundraising would be affected. Programs and expenditures were scaled back, or "streamlined" to provide continuing lake-related information and advocacy, but no significant new water quality initiatives were planned.

During the fiscal year, the association adjusted its fundraising strategies as COVID limitations were implemented. The biggest casualty was not having an annual dinner and fundraiser. On the bright side, the challenges generated new and better ideas for creative fundraising.

The pandemic also saw the popularity of Seneca Lake skyrocket. The need for a healthy Seneca Lake became crystal clear to our stakeholders. As a result, giving was robust. The healthy fiscal standing will allow a more active set of programs into the future.

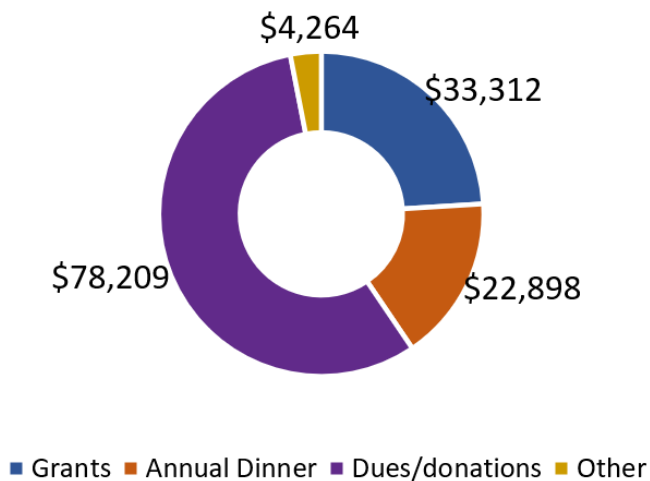
The most important new initiative is the umbrella Sediment and Nutrient Reduction Program (SNRP). This emerging program grew out of an extensive evaluation of the association's water quality portfolio with an eye toward supporting active water quality improvement projects. The aim is to increase the number of projects that can be executed in the watershed each year. The program is still being finalized and will be announced when fully defined. The first project—an engineering study of the lower Keuka Outlet for a potential erosion control project—was awarded in May 2021.

The two graphs below show the revenue sources and expense categories for the fiscal year. Not shown is the value of our field volunteers' time—approximately \$68,000. The combination of conservative budgeting, disciplined execution, and enthusiastic giving resulted in a surplus of \$45,000 this fiscal year—halting a two-year run with negative cash flow.

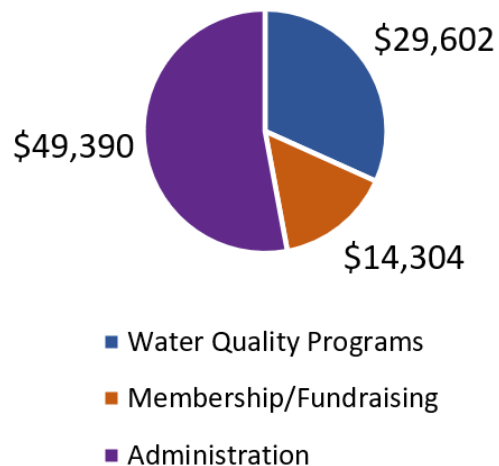


# OUR PERFORMANCE OVERVIEW CONTINUED

FY 2020-2021 Revenue  
\$138,683



FY 2020-2021 Expenses  
\$93,297



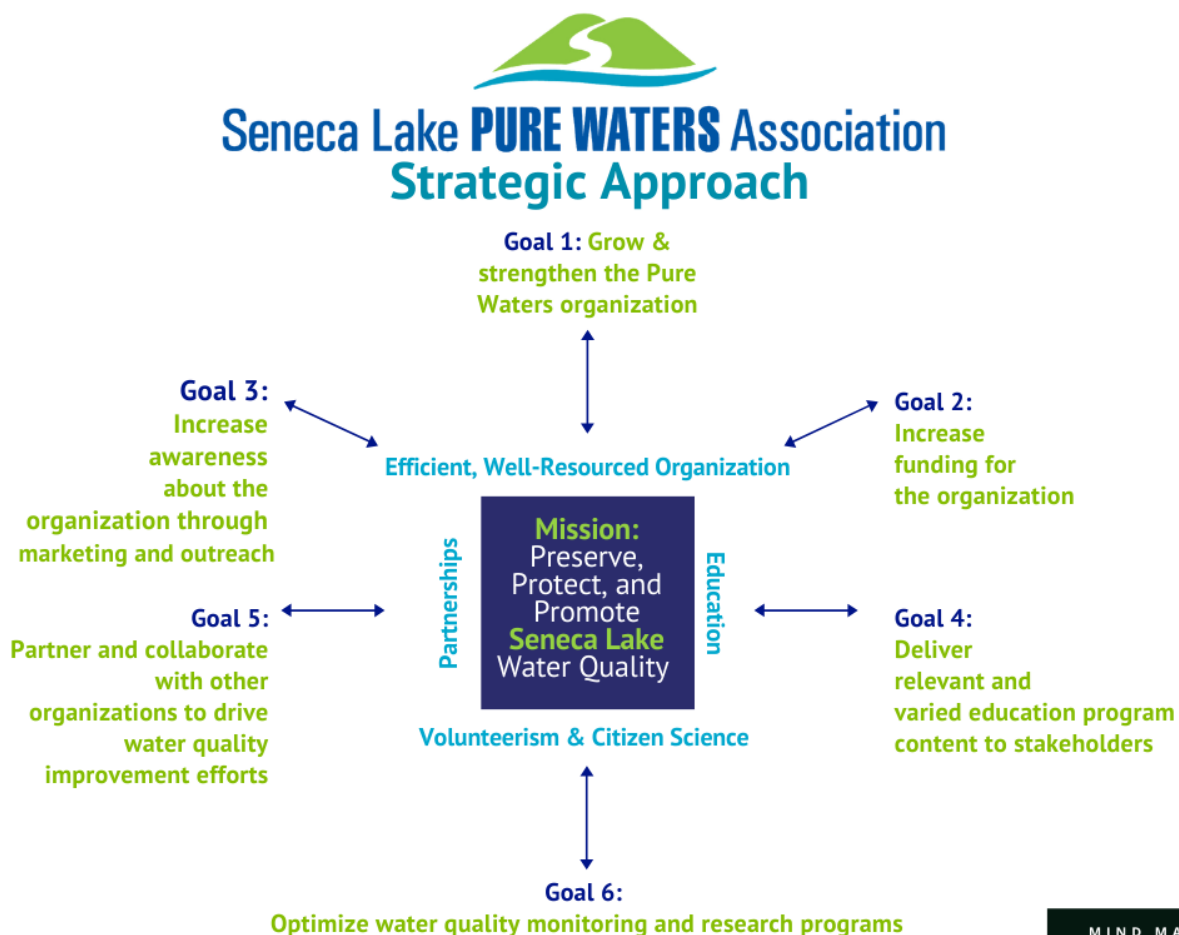
Pure Waters is growing and plans for the next fiscal year are ambitious as the pandemic wanes. The limiting factor is now volunteers—more volunteers are needed to manage the association and its water quality programs.

# STRATEGIC PLANNING UPDATE

The Executive Committee conducted a Strategic Plan review during the fall. The association made considerable progress on the previous 2019 version so the review turned into a major revision—removing objectives already achieved, updating others, and adding new aspirations.

The strategic approach remains the same: the mission is accomplished through education, volunteerism and citizen science, and partnerships all supported by an efficient, well-resourced organization. The new plan will guide the association for the next 3-5 years.

The board approved the draft revision in March 2021 and it will be published in summer 2021.



# WATER QUALITY PROGRAMS

The core of the association is its water quality program portfolio. The water quality team aims to execute high-quality programs to inform and manage Seneca Lake water quality. Besides its role in watershed management plan decision-making, Pure Waters gathers data, sponsors research, and educates the public on the state of the lake and water quality threats.

## Nine Element Watershed Management Plan

The project to update the Seneca Lake Watershed Management Plan (WMP), in the form of a Nine Element Plan, was initiated in 2018. Harmful Algal Blooms (HABs) occurrences in recent years have heightened the concerns of nutrient loading in all the Finger Lakes. Seneca Lake Pure Waters took a leadership role, with several partners, to initiate this project effort. Steps Seneca Lake Pure Waters took to secure the resources needed to cover the costs of this project include finding \$90,000 in “local match” funding and pursuing a New York Department of State grant of \$230,000. Nine Element plans are required by the United States Environmental Protection Agency and the New York State Department of Environmental Conservation (DEC) for preferred status in funding watershed remediation projects that are defined by these plans.

Keuka Lake joined the project as they constitute a large portion of the Seneca Lake watershed and the issues facing the two lakes appear to be largely shared. An executive committee of the Seneca-Keuka Watershed Partnership, with representatives of Pure Waters, Keuka Lake Association (KLA), Seneca Watershed Intermunicipal Organization, and Keuka Watershed Intermunicipal Compact is meeting regularly to manage the project. The Seneca and Keuka Lake Watershed stewards/managers are doing much of the work in project planning and execution, in conjunction with the contracted technical consulting firms Ecologic and Anchor QEA.





## Nine Element Watershed Management Plan, continued

Other partners, the DEC Finger Lakes Water HUB and Finger Lakes Institute, are providing technical support and guidance. Cornell University, Cornell Cooperative Extension, and all the County Soil and Water Conservation Districts have roles executing project elements.

A lot has been accomplished during the last year. Stream sampling and hydrology assessments were conducted to supplement data collected in previous years. This data has been incorporated into the watershed math model. This model, which has been constructed and is in the final stages of validation, will aid the selection of remediation projects that provide most cost-benefit. The watershed characterization information, including land uses, demographics, local laws, and other relevant data, has largely been updated. Public outreach included sessions with the Project Advisory Committee and a well-attended public outreach meeting. A quarterly newsletter is distributed widely to promote public awareness and interest in the project.

Pure Waters anticipates that the fully updated watershed management plan will come together late in 2021 and a final version, that includes inputs from public sessions and specific plans, will be completed early in 2022.

## Lake Friendly Living

The Lake Friendly Living program was launched in May 2020 with ambitious goals centered on education and partnerships. The program management team is excited and grateful for its achievements during the past year.

Lake Friendly Living encourages watershed residents to do their part to protect the quality of Seneca Lake water for drinking, recreational fun, and economic vitality. Its focus on education aims to make it simple and accessible. The program created and provided resources both online and in print to help residents learn and apply lake friendly practices around their homes. The program also included a virtual rain barrel workshop.



## Lake Friendly Living, continued

A focus of the Lake Friendly Living program was encouraging members to “take the pledge” and display lake-friendly signs at their homes. Those who took the pledge were then encouraged to promote lake-friendly topics in social media. Thank you to all who have participated this past year—especially those that have already “taken the pledge”.



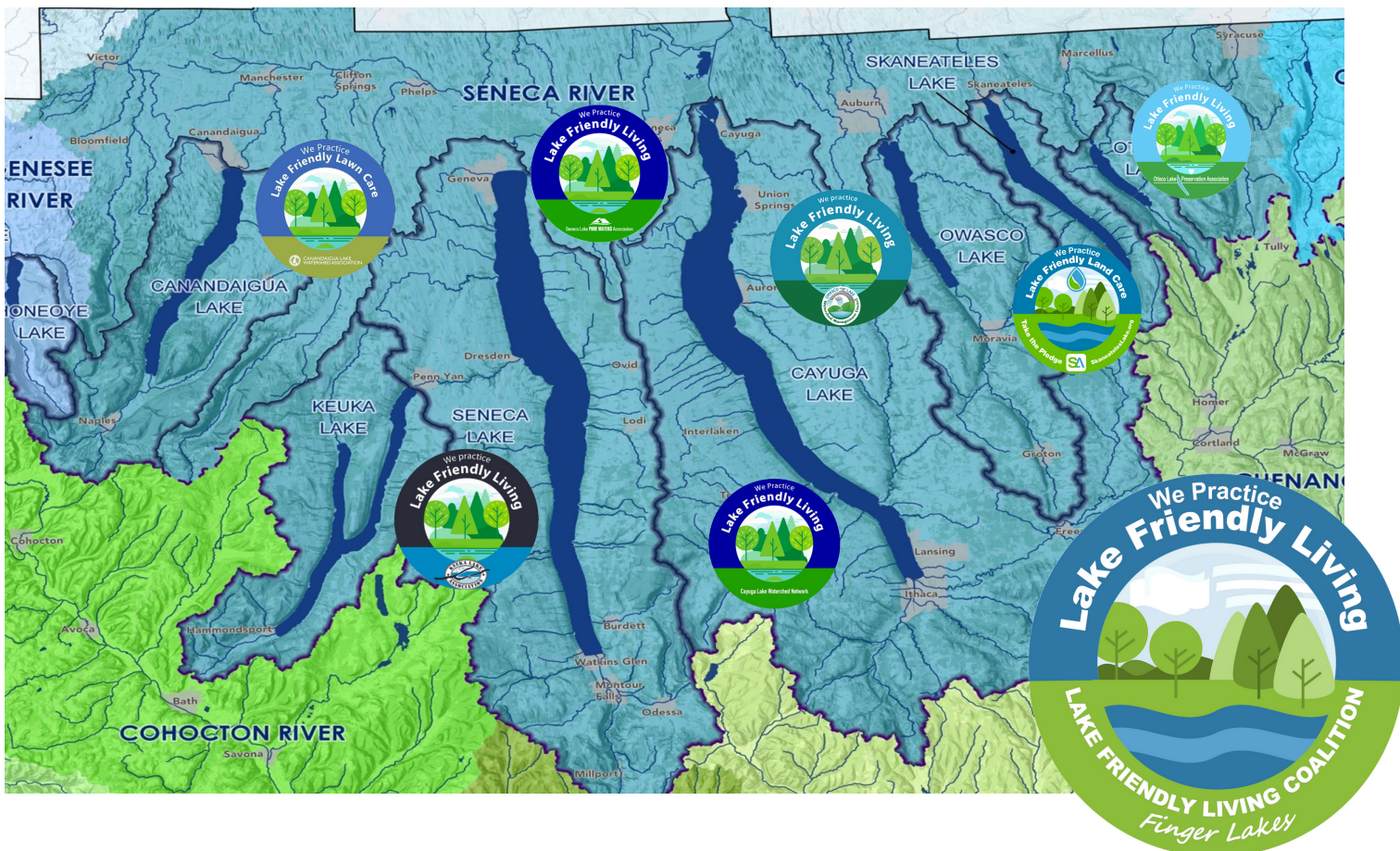
Throughout the summer, the Seneca Lake Pure Waters Lake Friendly Living program was engaging and sharing with other regional Lake Friendly Living programs to attract more residents and businesses. With the common goal of protecting the health of our lakes, the Lake Friendly Coalition of the Finger Lakes works together to educate watershed residents, in homes and businesses, on implementing lake friendly living practices. The coalition includes Canandaigua, Cayuga, Keuka, Otisco, Owasco, Seneca, and Skaneateles lakes.



## Lake Friendly Living, continued

In May 2021, the coalition held its inaugural Lake Friendly Living Awareness week that included a series of educational webinars featuring experts on topics such as native plants, earth friendly gardening, citizen science, invasive species, and sustainable vineyard management practices. The series had over 400 participants. The awareness week was recognized by the New York State Assembly with a resolution commemorating the “Finger Lakes community's celebration of Lake Friendly Living, May 2-8, 2021.”

Lake Friendly Living Awareness week is just one example that shows working together can be more impactful than individual lake-centered programs. The coalition will continue to create new ways to engage residents, businesses, and local governments to be lake friendly. Seneca Lake Pure Waters Association encourages its members and watershed residents to “Take the Pledge” and learn more at [www.senecalake.org/lakefriendlyliving](http://www.senecalake.org/lakefriendlyliving).



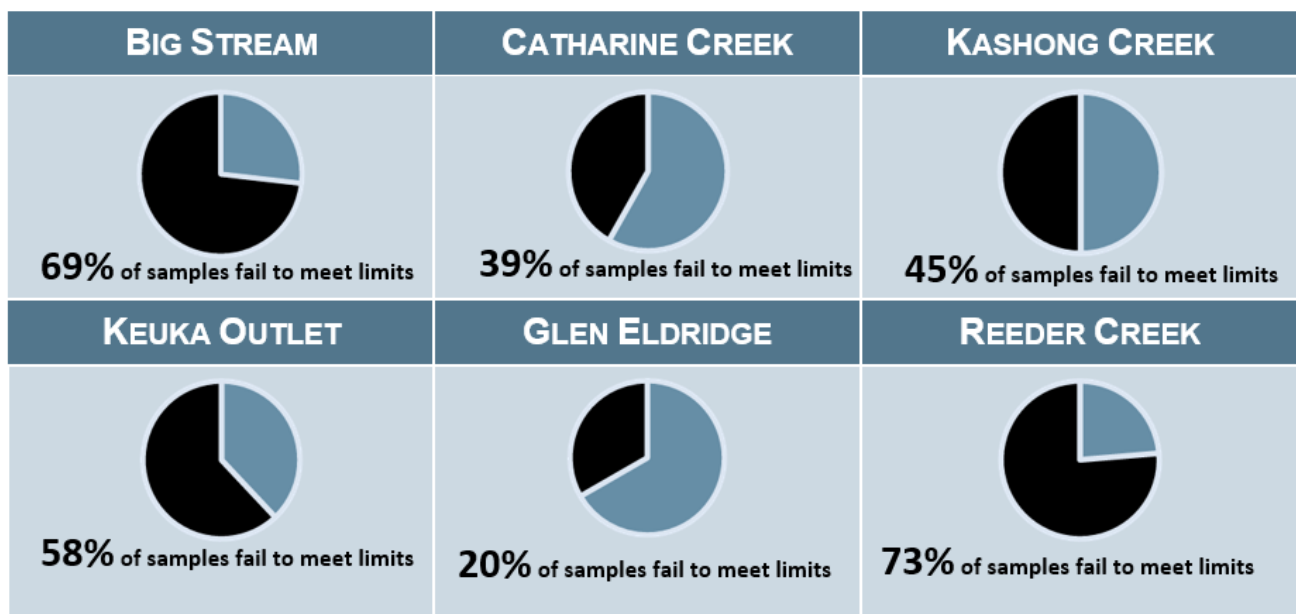


## Stream Monitoring

Seneca Lake Pure Waters Association's stream monitoring effort is in its eighth consecutive year, conducting water quality monitoring in streams listed in the tables below. Despite sampling reductions due to COVID in 2020, volunteers were able to collect at multiple sampling sites in streams from the headwaters to stream mouths at Seneca Lake. These included Big Stream, Catherine Creek, and Keuka Outlet. Sample collections occurred only at stream mouths in the remainder of streams. In total, 51 samples in six streams were collected from May through October 2020 for baseline and high-water sampling events. Pure Waters' partner in this monitoring, Community Science Institute of Ithaca, NY, performed the sample analysis.

Each of the streams have unique conditions and characteristics that contribute valuable information to the monitoring program. All indicate impaired water quality, in bacteria and nutrient levels in particular. Problems such as bank erosion and upstream runoff increase nutrient and bacteria loading to the streams and to the lake.

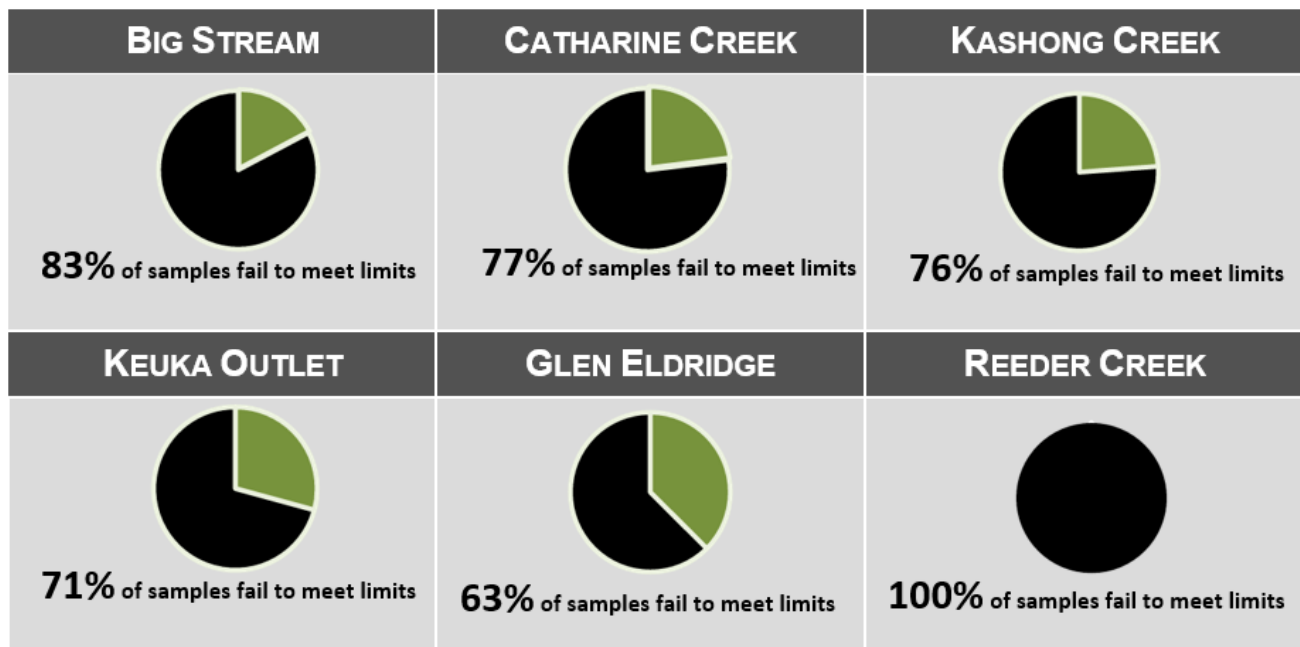
Streams frequently fail to comply with bacteria limits for swimming. Shown are percentage of stream samples that fail to meet E.coli bacteria limit of 235 cfu/100mL, results from 2014-2020 (cfu: colony forming unit).



## Stream Monitoring, continued

### **Streams generally fail to meet phosphorus limits.**

shown are percentages of stream samples that fail to meet total phosphorus limit of 20 µg/L, results from 2014-2020 (µg/L: microgramme per liter).



The major streams feeding Seneca Lake continue to show high levels of phosphorus, which can lead to algae overgrowth and contribute to harmful algal blooms. High levels of E. coli bacteria found in streams are a sign of contamination from manure runoff, sanitary sewer or septic system discharges and remains an ongoing concern for quality of recreational and drinking water resources.

Pure Waters continues its sampling effort in 2021 to better understand pollution in Seneca Lake, and to bring about further improvement actions. A special thanks to the Seneca Lake Pure Waters stream team volunteers who make this effort possible!

## **Citizen Statewide Lake Assessment Program**

Seneca Lake Pure Waters reinstated the Citizen Statewide Lake Assessment Program (CSLAP) on Seneca Lake in 2017 thanks to a three-year grant from the U.S Environmental Protection Agency (EPA). Currently Pure Waters continues to fund a portion of this program, with additional funding from the State Department of Environmental Conservation (DEC). Seneca Lake is one of 160

## Citizen Statewide Lake Assessment Program, continued

statewide lakes participating in the CSLAP program administered by New York State Federation of Lake Associations (NYSFOLA) coordinated with the DEC staff.

The CSLAP program monitors lake water samples for nutrient levels and biological productivity (trophic status) as they change year to year and lake to lake within the state. Pure Waters volunteers collect shallow and deep lake water samples biweekly at four locations throughout the summer.

In 2020 and prior years, sampling sites were all in deep water spread out north to south along the lake. In 2021, sampling will take place at one southern mid-lake (deep) location and near three stream discharge locations in the areas of Geneva, Dresden, and Watkins Glen. The three discharge locations are classified as "B" grade water (as opposed to class A in the rest of the lake) and are expected to contain higher nutrient levels than mid-lake samples.

Pure Waters uses a group of 8 to 10 volunteers who spend approximately 185 man-hours sampling, processing, and transporting samples to Upstate Freshwater Institute (UFI), a DEC-certified lab, for analysis. The DEC supplies funding for the equipment, training and materials the volunteers use.

Pure Waters will continue to participate in this program to help identify potential problems that need attention.

## 2020 LAKE SCORECARD

### NORTH SITE

Water Quality Indicators	Average Year	2020
Phosphorus	Mesotrophic	Oligotrophic
Chlorophyll A	Mesotrophic	Mesotrophic
Secchi	Mesotrophic	Mesotrophic
Lake Perception	Good	Good
Harmful Algal Blooms	Poor	Fair
Open Water Algae Levels	Poor	Good
Aquatic Invasive Species	Present	

### MID-SOUTH SITE

Water Quality Indicators	Average Year	2020
Phosphorus	Mesotrophic	Oligotrophic
Chlorophyll A	Mesotrophic	Mesotrophic
Secchi	Mesotrophic	Mesotrophic
Lake Perception	Good	Good
Harmful Algal Blooms	Poor	Fair
Open Water Algae Levels	Poor	Good
Aquatic Invasive Species	Present	

### MID-NORTH SITE

Average Year	2020
Oligotrophic	Mesotrophic
Mesotrophic	Mesotrophic
Mesotrophic	Mesotrophic
Good	Good
Poor	Fair
Poor	Good
Present	

### SOUTH SITE

Average Year	2020
Mesotrophic	Mesotrophic
Mesotrophic	Mesotrophic
Mesotrophic	Mesotrophic
Good	Good
Poor	Fair
Poor	Good
Present	



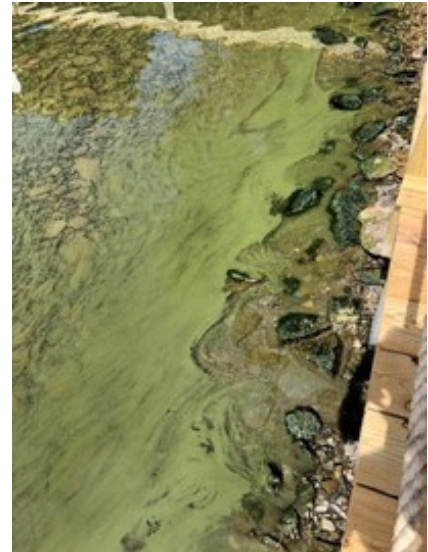
## Harmful Algal Bloom Program

The primary focus of the Pure Waters Harmful Algal Bloom (HAB) program is shoreline monitoring. In summer 2020, over 120 volunteers surveyed 82 zones, comprising over 80% of the shoreline, for nine weeks starting the first week of August. The program started in 2014, with a call-in hotline and a couple of people chasing calls and has grown into a mature program in a few short years. In 2020, volunteers provided 650 observations.

After doing a HAB survey, volunteers report into a phone app whether they find a bloom or not. When they see a bloom, they answer some questions and attach photos. This year there was no sampling, as the New York State Department of Environmental Conservation (DEC) has changed to photo-only confirmations and Pure Waters decided to follow suit. We had good luck with photo confirmation in 2019 and 2020 and it is very accurate.

In previous years, Seneca Lake has seen extensive blooms throughout the month of September. For an unknown reason, there were very few blooms spotted in 2020—a total of 15 as compared to 130 in 2019.

A pilot program to monitor HABs away from shore began in the past year. Using another app, a select set of volunteers reported on HABs during the course of their normal boating activities. Given the paucity of blooms, there wasn't a chance to use the app, so this pilot program will continue in 2021.



HAB photo taken in zone 3010, near Peach Orchard Point, on August 31, 2020—the most intense HAB day of 2020

*Dr. John Halfman's 2020 HABs research report, available on the Pure Waters HAB web page, combines data from Seneca Lake, Owasco Lake, and others to try and make sense of HAB experiences in the Finger Lakes. In 2020, Seneca Lake had very few blooms, while Canandaigua, Cayuga, and Owasco Lakes "exploded." The lakes and their environments are so similar that it is hard to understand why their experiences were so different. After comparing multiple parameters, Dr. Halfman was left with one potential, but still uncertain, reason—winds.*

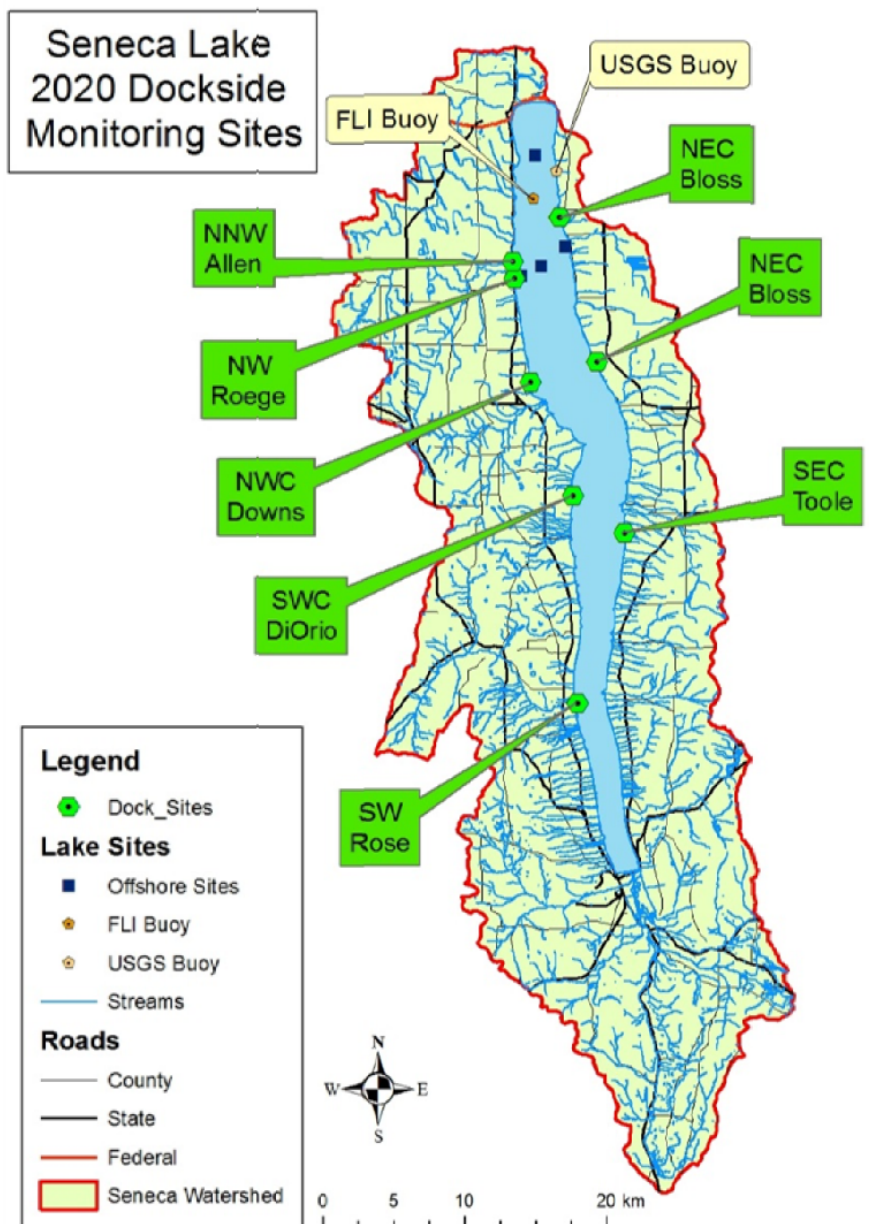
*The dock monitoring data shows how winds vary from location to location due mainly to local topography. The wind patterns were slightly different than in 2019 and the winds on Seneca may have shifted enough to keep the water rougher than normal in September, thus breaking up the blooms. In addition, previous shoreline nutrient testing has shown nutrient levels are too low for blooms to form at the shoreline. It appears the cyanobacteria bloom away from shore and must be gently blown or ride on currents to concentrate. In 2021, the Finger Lakes Institute at HWS will be adding multispectral imaging to shed more light on this theory.*

## Harmful Algal Bloom Program, continued

Research is another key component of the HABs program. Pure Waters provided a \$5,500 grant to continue research on Seneca Lake with our partner Hobart and William Smith Colleges (HWS). The dock monitoring program continued its second year and is a model for similar programs on other lakes. There are eight monitoring stations at key locations around the lake that gather important weather data and water temperature information every 30 minutes. Each station also has a time-lapse camera to capture HABs. In 2019, the cameras found about 50 HABs—they found none in 2020. That result provides confidence that there were not many HABs on Seneca Lake in 2020. Pure Waters will continue funding this important research in 2021.

Another research project involved commercially-available Microcystin field test kits. These kits can be purchased online and for about \$35. They are advertised to detect toxins to a drinking water standard and only take about 20 minutes to show results. Twenty-five tests were planned, but due to the lack of blooms, there were only 11 tests taken. The results were promising and the testing will continue in 2021 thanks to a generous donation from member Jeanne Specchio. After testing is complete, Pure Waters will publish the results. Individuals can then decide whether to take advantage of this capability.

The Pure Waters webpage [senecalake.org/blooms](http://senecalake.org/blooms) contains information about the HABs program and provides links for more information. In addition, the 2020 research report from Professor John Halfman is available there.



## Invasive Species (PRISM)

Summer 2020 was the second year Pure Waters has participated in regional efforts to better characterize invasive aquatic plant species in Seneca Lake. The program is part of the New York State PRISM (Partnership for Regional Invasive Species Management) program. The regional PRISM program is funded and managed through the Finger Lakes Institute (FLI) at Hobart and William Smith Colleges.

The macrophyte survey process utilizes citizen scientists to identify invasive aquatic plants, that are of concern. Pure Waters recruits and coordinates 12 volunteers, while FLI/PRISM provides training.

PRISM and Pure Waters ensure volunteers have the tools and materials they need to perform “rake toss” surveys and to identify the plants they collect. Volunteers conduct surveys every two weeks throughout the growth season and report results to the PRISM staff, who then collates, analyzes, and publishes the data.

Hydrilla, not found on Seneca Lake  
Finger Lakes PRISM



Eurasian Water Milfoil,  
present on Seneca Lake,  
Seneca Pure Waters

### Finger Lakes PRISM and Wildlife Forever Grant for Invasive Species and Event Merchandise

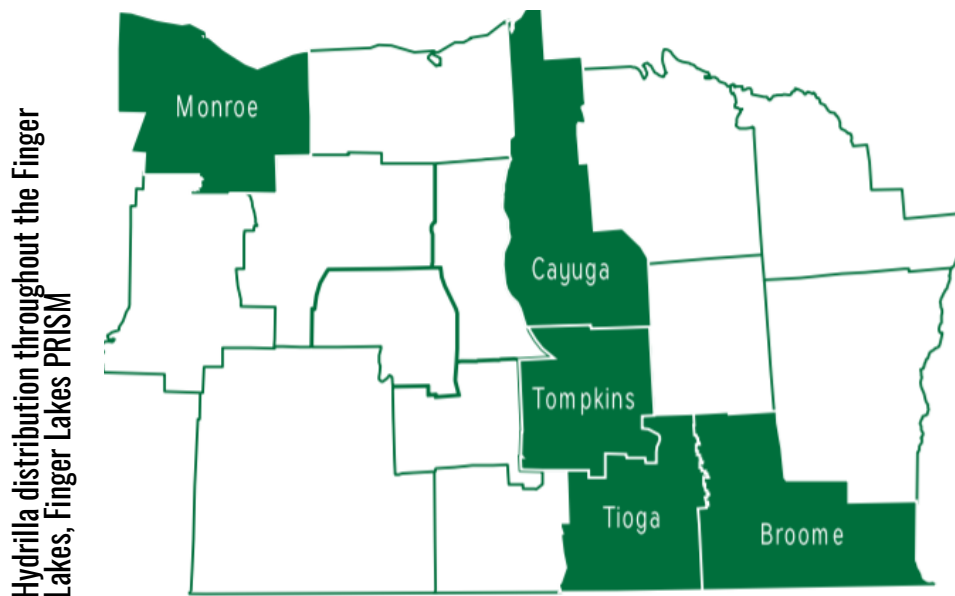
In early 2021, Pure Waters collaborated with PRISM (Partnership for Regional Invasive Species Management), administered out of the Finger Lakes Institute, and was awarded a \$2,100 reimbursement grant to purchase invasive species educational materials and outreach equipment. The materials were obtained from various vendors including Wildlife Forever, and are intended to aid in Pure Waters' invasive species awareness efforts on Seneca Lake. These materials will be distributed widely and throughout the watershed at all in-person events, at boat launches and within information mailing packages sent to nearly two thousand lakeshore homeowners this summer. The Seneca Lake Pure Waters Association would like to thank the Finger Lakes PRISM for their support in education, prevention, and for their expertise in invasive species management throughout the Finger Lakes.



## Invasive Species, continued

Findings from the first two years include:

- No Hydrilla, one of the most aggressive invasive aquatic plants threatening our lake. Hydrilla has been present in Cayuga Lake where a multimillion-dollar effort to eradicate it has been underway since 2011.
- Eurasian Milfoil is a prevalent invasive aquatic plant in the lake.



Program growth for invasive species identification, control, and public education is a key Pure Waters strategic objective. Pure Waters will continue the program in 2021, increasing emphasis on locations that pose a high risk for potential Hydrilla introduction.

In addition to “rake toss” surveys, Pure Waters helped PRISM obtain a \$2,100 grant to acquire educational materials and public outreach equipment for future Pure Waters events. Pure Waters has also budgeted \$3,000 for Summer 2021 to support an expanded PRISM Watercraft Steward deployment aimed at preventing the spread of invasives by inspecting boat and trailer carry-out at key launch sites.

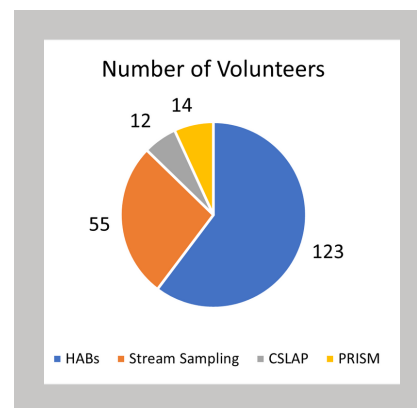
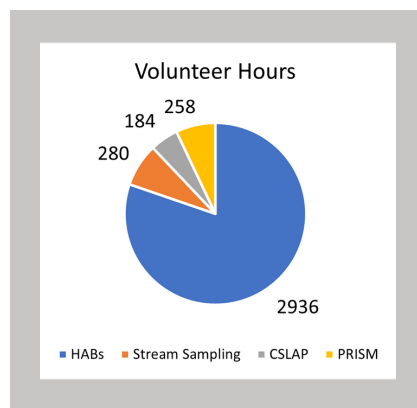
Program growth for invasive species identification, control, and public education is a key Pure Waters strategic objective. Pure Waters will continue the program in 2021, increasing emphasis on locations that pose a high risk for potential Hydrilla introduction.



# PURE WATERS VOLUNTEERS

Volunteers are the key to most Pure Waters water quality programs. In this fiscal year, over 200 volunteers contributed over 3,400 hours of their time working on water quality monitoring programs. The 3,400 hours equates to \$68,000.

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



## Advocacy Activities

This fiscal year, Pure Waters engaged with state and local governments concerning the proposed expansion of bitcoin mining operations at the Atlas Holdings Greenidge Power Plant in Dresden, New York.

The Pure Waters position was that the expansion should be delayed until an environmental impact study, focused on thermal impacts, is completed. The primary concern for the watershed is the impact from the single-pass cooling system, which would not be allowed in a new plant, on the Keuka Outlet (a designated trout stream) and in the lake near Dresden. Unfortunately, after extended meetings and debate, the Town of Torrey Board approved the proposed expansion.

In addition, the New York State Department of Environmental Conservation (NYS DEC) has allowed Greenidge to delay installation of a required cooling water intake fish screen. Given the profitability of bitcoin, Pure Waters strongly urged Greenidge to immediately install a screen.

In the next fiscal year, Pure Waters will focus on engaging the NYS DEC concerning the plant's 2022 permit renewal to ensure all environmental factors are appropriately considered.

## Association Operations

The Vice President of Operations is responsible for coordinating all of the business functions of Pure Waters. These functions, shown in the diagram below, are the core functions that allow Pure Waters to operate in an efficient manner on a day-to-day basis.



Kaitlin Fello, Pure Waters Administrative Coordinator, proved to be the engine behind much of our Operations success for the year. Kaitlin brings a special skill set to all Committees and works tirelessly to make sure all Committee goals are achieved and in alignment with the Pure Waters' Strategic Plan. As a result of Kaitlin's dedication and hard work, the Board of Directors has named her Association Director as of June 2021.

At the start of the fiscal year, Pure Waters conducted its first Member Satisfaction survey. Although the response rate was a bit lower than anticipated, some valuable information was gathered from this survey. Most importantly, 93% of respondents indicated they were either very satisfied or satisfied with the Seneca Lake Pure Waters Association's direction and performance.

## Association Operations, continued

The survey results also encouraged Pure Waters Leadership to focus on the following areas of interest moving forward:

- Hands on programs that lead to a decrease in run-off and pollutants entering streams and the lake
- Investigate point source pollution from municipal sewage plants, industrial facilities, etc.
- Engage municipal leaders on land development concerns to preserve the watershed's natural landscape
- Educate and empower watershed residents and businesses with Lake Friendly Living practices
- Research on fish population decline

These areas will be factored into our future plans and initiatives. Given the success of the survey, it will now be repeated on a regular basis.

Like so many other organizations, Pure Waters was faced with an ever-changing landscape due to the pandemic. "Adapt" was the motto of the year. Operations Committees needed to adapt traditional solutions to work with and around the COVID restrictions. This set up an environment of risk-taking and maximum creativity. In the end, Pure Waters volunteers came through with solutions that exceeded all expectations.

## Fundraising and Membership

In May 2020, the fundraising team was facing a lot of unknowns and therefore planned for a lean year. Luckily, with new strategies, Pure Waters was able to substantially exceed its conservative targets. As the pandemic pushed people outside and to places like Seneca Lake, it appears public awareness about the value of the lake increased. This led to members continuing to give, often increasing their donation levels, and new members joined.

Pure Waters has two major fundraising campaigns—the membership drive in May to July and the annual appeal in November to January. The 2020 membership drive introduced new tiered membership levels, encouraging members to increase their giving. The result was a 65% increase in dues received. The annual appeal receipts increased by 15% compared to the year prior. Overall, giving via dues and donations increased 25% from the previous fiscal year to over \$68,000.

Membership increased this fiscal year by 35% and now stands at over 700 active members. However, the board believes this number should be much higher.

## Fundraising and Membership, continued

For instance, there are some 2,500 residences on the lake and far less than half are members. Many lakefront owners are unaware that Pure Waters exists.

Membership Tier	Number	Business Membership Tier	Number	Giving Level
Friend*	133			\$25*
Supporter	225			\$50
Partner	230	Bronze	33	\$100
Protector	48	Silver	3	\$250
Lake Defender	16	Gold	3	\$500
Watershed Benefactor	18	Platinum	3	\$1,000
<b>Total</b>	<b>670</b>		<b>42</b>	

Table: Association membership as of June 1, 2021

\*Note: Two student memberships at \$10 are included in the Friend category.

To prepare for the 2021 to 2022 fiscal year, the Fundraising and Membership Committee developed strategies to increase membership, especially among lakefront and lakeview owners. Step one was to fully revamp the association's promotional and educational materials. The next step was producing a new promotional video.

In summer 2021, Pure Waters will mail out membership materials to all lake property owners and follow up in many locales with a personal touch. Called "Neighborhood Connect" this strategy invokes member volunteers to reach out to their neighbors and encourage them to join. The Tripp Foundation is facilitating this entire effort with a generous grant aimed to increase Pure Waters' membership by 50% in 2021.

Successful fundraising supports program growth. High membership numbers provide more political influence and opportunities for grant funding. Momentum for both is going in the right direction.

### *Pure Waters Recognized by Cornell Cooperative Extension*

*Seneca Lake Pure Waters Association engages with many partner organizations in pursuit of its mission to preserve, protect, and promote Seneca Lake water quality. This past year, Pure Waters had the opportunity to work with the Cornell Cooperative Extension of Yates County (CCEYC) to promote harmful algal bloom (HAB) education and awareness.*

#### *Friend of Extension Award*

*CCEYC recognized Pure Waters during its annual meeting on December 10, 2020. Each year, the Friend of Extension Award is given in "recognition of valuable contributions to the mission of CCE; improving the lives of people in Yates County through partnerships that put experience and research knowledge to work." Pure Waters is proud to receive this honor for 2020 and looks forward to many more years of close partnership with CCEYC to benefit the community.*






## Communications

Pure Waters communicates with its stakeholders in multiple ways. The Pure Waters LAKEWATCH newsletter is distributed to over 1,600 contacts monthly. During the HABs season, weekly updates were provided via "Bloom Watch." Monthly radio broadcasts with Ted Baker of Finger Lakes News Radio also continued. Website enhancements were made throughout the year to ensure all of our members had the latest lake information possible at their fingertips. Regular coverage of many Pure Waters activities was reported in the Finger Lakes Times for public awareness.

Like other committees, the pandemic drove the need for new solutions. As an example, Pure Waters sponsored a "What's in our Lake?" webinar series that replaced traditional in-person public educational forums. Webinar topics held during the year included: "A History and Status of Seneca Lake," "Nuisance and Harmful Algae," "Rain Barrel Workshop," "Farming Symposium," and "Sustainable Vineyard." This new approach for disseminating water quality information proved to be remarkably successful and will continue into the future.

SENECA LAKE PURE WATERS ASSOCIATION PRESENTS:



### WHAT'S IN OUR LAKE?

Webinar Series

PART 1: Thursday, August 27th, 6:30pm-7:30pm  
**A HISTORY AND STATUS OF SENECA LAKE WATER QUALITY**  
with John Halfman  
of Hobart and William Smith Colleges

---


SENECA LAKE PURE WATERS ASSOCIATION PRESENTS

### WHAT'S IN OUR LAKE?


Webinar Series

## ALGAE: 2020 RESEARCH & REVIEW

Presenters



**DR. LISA CLECKNER**  
HWS / FIJ



**WILLIAM ROEGER**  
SLPWA

Pure Waters HABs Director, Bill Roeger, reviews unanticipated 2020 monitoring results, along with commercialized toxin test kits, and new plans for the 2021 Harmful Algal Bloom season. Dr. Cleckner, Finger Lakes Institute (FIJ) Director, presents on Cladophora research throughout the Great Lakes basin and FIJ research here in the Finger Lakes.

Register: [www.senecalake.org/events](http://www.senecalake.org/events)

Wednesday, December 16th, 6:30pm-7:30pm

Sponsored by: **WENY NEWS**



### VIRTUAL FARMING SYMPOSIUM

WEDNESDAY, MARCH 31, 3:00PM

**ABOUT**

Did you know that farmers can be paid for sequestering carbon in the soil and for other ecosystem services? Join the Town of Geneva and the Seneca Lake Pure Waters Association during a virtual presentation to discuss both Regional and National scale Carbon Farming programs, otherwise known as Soil Health Incentive programs.

**SPEAKERS**



**REBEKAH CARLSON**

As the Agriculture Supply Lead at Nori, Rebekah helps guide farmers through the Nori enrollment process in the wild west of carbon marketplaces. She spent many years walking fields in Nebraska, working on a cow calf operation and helping on the farm. She holds a B.S. in Biochemistry and M.S. in Applied Plant Sciences - Agronomy & Agroecology.



**MATT SHEFFER**

Matt is a representative from Hudson Carbon, a carbon farming initiative in the Hudson valley, a region much like the Finger Lakes. Visit [www.hudsoncarbon.com](http://www.hudsoncarbon.com) to learn more about this team of growers, scientists, and environmentalists working to instigate regenerative agriculture and ecological restoration.

**JOIN**

Any farmer from the Seneca-Keuka Lake watershed that attends the meeting and fills out a post-symposium survey will be given a \$50 payment. This symposium is open to anyone, but incentive pay will only be available to farmers in the Seneca-Keuka watershed.

QUESTIONS? [Foxjacob@me.com](mailto:Foxjacob@me.com) REGISTER: [www.Senecalake.org/events](http://www.Senecalake.org/events)

Learn about Carbon sequestration by visiting our YouTube page



### FINGER LAKES LAKE FRIENDLY LIVING WEEK

MAY 2 - 8, 2021

**MAY 6, 2021 AT 7:00 PM**  
**SUSTAINABLE VINEYARD BEST MANAGEMENT PRACTICES FOR PROTECTING SENECA LAKE**

The increasing vitality of the Finger Lakes wine industry has brought an abundance of new wine operations and tourism to the region. With growing concern about the health of Seneca Lake, this webinar takes a dive into the vineyard practices that help protect the lake.

Join viticulture experts for a discussion on best vineyard management practices, and the decisions necessary to lead a sustainable winery operation. Tonight

Seneca Lake PURE WATERS Association

### Virtual Rain Barrel Workshop

Seneca Lake Pure Waters Lake Friendly Living Program is pleased to team up with Seneca County Soil & Water Conservation District and Ontario County Soil & Water Conservation District to bring you our first workshop to help learn Lake Friendly Living practices.

Using a rain barrel is an easy way to protect our watershed and save money! Your rain barrel will collect and store rainwater from your roof that would otherwise be lost to runoff and diverted to storm drains or streams. The water you collect can be used for watering gardens and lawns, topping off swimming pools, cleaning outdoor furniture - the list goes on and on!

This virtual event will be held from 6-7 pm. Participants will receive a link to the event after registering.

**Wednesday, August 19 from 6-7 pm**

Cost: \$40 (includes ready to install barrel)

To register, please call Alaina Robarge at 585-396-1450 or email [alaina.robarge@ontswcd.com](mailto:alaina.robarge@ontswcd.com).

**Deadline for registration is August 15.**

Please provide your location when registering and we will contact you regarding arrangements to pick up your barrel.

Mailing Address: 480 North Main St. Canandaigua, NY 14424

Please make checks payable to: Ontario County SWCD





## Events

Over the past few years, it became clear that the Seneca Lake Pure Waters Association needed to provide a forum for reviewing progress with all water quality and educational programs annually. A decision was made to host the first ever Virtual Annual Meeting. Based on the positive feedback received from many participants, the meeting will continue as a virtual event each year.

The ever-popular Annual Dinner with a silent auction was cancelled. Annual Dinner alternative events were planned and executed. As an example, rather than an in-person silent auction, Pure Waters experimented with its first-ever Virtual Silent Auction in 2020. Results from the virtual auction were outstanding and revenue exceeded all past in-person auction events. Since the traditional dinner program booklet with sponsors and advertising was also not feasible due to the in-person event cancellation, the Pure Waters President made a special appeal to many past annual dinner sponsors and advertisers. A special thank you to those who responded with generous financial donations including:

Tom Burrall  
Diana Warn, Cargill Salt  
Jim and Lois Carter  
Kathleen Decruze  
Sara Elder

Alaine Espenched &  
Brad Prozzler  
Joy Hoffman  
Gene Pierce  
James Reed  
JD & Maryann Young

Rich & Cindy Weakland  
Scott Welliver  
WENY  
Jake & Karen Welch

Because large events were not possible in any form, small, COVID-safe regional outreach events were executed. Doug's Fish Fry food truck located in Watkin's Glen proved to be a member favorite.



Another small local event at Zugibe Vineyards was also well attended and received rave reviews. Pure Waters was also hosted by Dr. Tom Thompson at Bottomless Brewing in late May, and had yet another very successful fundraiser. Based on the success of these regional events, Pure Waters will continue to host more in the future.

In the end, target event revenue was exceeded as a result of implementing the various innovative solutions described above. We look forward to providing a diverse set of events for our members and the public moving forward.

## Finance

The Finance Committee played a key role in the financial planning, budgeting and tracking of an initial budget and budget changes as the COVID-19 situation was better understood. Financial processes provide the board with monthly insights that were valuable as Pure Waters navigated the pandemic. With improved insight, the board was able to focus on opportunities that ended up paying off. The financial statement shows the association is healthy.

### Financial Report

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, 2021.

<b>Balance Sheet</b>	<b>2020-2021</b>	<b>2019-2020</b>
<b>Assets</b>		
Bank Accounts	\$162,215.48	\$122,478.69
Accounts Receivable	--	--
Other Current Assets	\$5,425.98	\$4,284.56
Fixed Assets	\$37,611.84*	\$2,101.48
<b>Totals</b>	<b>\$205,253.30</b>	<b>\$128,864.63</b>
<b>Liabilities and Equity</b>		
Current Liabilities	\$21,952.45	\$23,837.16
Restricted and Unrestricted Funds	\$137,914.34	\$113,523.24
Net Income	\$45,386.51	-\$8,495.77
<b>Total Liability and Equity</b>	<b>\$205,253.30</b>	<b>\$128,864.63</b>

<b>Revenue and Expense Summary</b>	<b>2020-2021</b>	<b>2019-2020</b>
<b>Revenue</b>		
Grants	\$33,312.51	\$15,140.00
Annual Dinner	\$22,897.52	\$19,341.00
Dues/Donations	\$78,208.72	\$62,209.00
Other	\$4,264.37	\$46.12
<b>Total Income</b>	<b>\$138,683.12</b>	<b>\$96,736.12</b>
<b>Expenses</b>		
Water Quality Programs	\$29,602.23	\$45,760.97
Membership/Fundraising	\$14,304.40	\$18,792.82
Administration	\$49,389.98	\$40,678.10
<b>Total Expenses</b>	<b>\$93,296.51</b>	<b>\$105,231.89</b>

\*\*Note: Pure Waters was given a small lakefront property in 1993 that was never reflected on the balance sheet. The property was added as an asset in Winter 2021 at the assessed value of \$36,200.

## 2020-2021 Board of Directors

Rich Adams  
Robert Barton  
Tom Burrall  
Frank Case  
John Cooley  
Dan Corbett  
Kelly Coughlin  
Frank DiOrio  
Margaret Focarino

Sayre Fulkerson  
Larry Martin  
William McAdoo  
Catharine McCracken  
Jim McGinnis  
William Roege  
Maura Toole  
Jake Welch

### New Board Members

Steve Bromka  
Ron Klinczar  
Jody Tyler

### Retiring Board Members

Robert Barton  
Sayre Fulkerson  
Catharine McCracken

*Love the lake!*



**Seneca Lake**  
**PURE WATERS**  
**Association**

[www.senecalake.org](http://www.senecalake.org)