

SUMMER 2023

LAKEWATCH



Seneca Lake **PURE WATERS** Association



SPW President, Dan Corbett

A MESSAGE FROM THE PRESIDENT

The saying “it takes a village to raise a child” has its roots as an old African proverb meaning that an entire community must come together for children to grow in a safe and healthy environment. The same can be said for a lake, even one as large as Seneca Lake, that the health and safety of that body of water depends on a community of caring people. We can say “it takes the watershed to protect the lake”. And it takes more than just the watershed. We need to draw on resources at the state and federal levels. But those of us that treasure this resource must identify the issues, bring data to the table, raise awareness, and continually strive for meaningful actions.

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The folks at Seneca Lake Pure Waters embrace the organizations mission “Preserve, Protect, and Promote Seneca Lake Water Quality”. We take pride in have many programs designed to do just that, from ongoing monitoring of the lake and its tributaries to education of lake friendly living practices, to researching fisheries health and new chemical threats, and funding projects that reduce sediment and nutrient pollution into the lake. These efforts, and many others, can only be done effectively with the help of many hands.

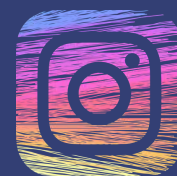
We’re blessed to have literally hundreds of volunteers that support these programs, but we continue to have a large appetite to do more. Please let us know if you have any interest in getting involved in this important mission. [CLICK HERE](#) if you're interested in volunteering.

Our volunteers feel the satisfaction of learning new things and contributing to a worthwhile cause. They also enjoy the comradery of working with likeminded folks. I want to give my heartfelt thanks to the many people that regularly support us with their time or with their dollars.

Dan Corbett
President
Seneca Pure Waters

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Another Successful Year of Lake Trout Derby Samples for Fish Health Study

Co-Written by Shannon Hazlitt-Harts and Mark Petzold



- *Volunteers working hard at the fish study station at Stivers Marine in Waterloo, NY*

The Tiki Bar at Stivers Marina in Waterloo was alive with a party atmosphere as people enjoyed chicken barbecue and a raffle at the end of the 2023 Memorial Day weekend. Those celebrating weren't just relishing the long holiday weekend. Many were among the 639 anglers basking in the accomplishments of their catches for the 59th annual National Lake Trout Derby on Seneca Lake.

The winning fish for this year's derby was a lake trout weighing in at 12.71 pounds. An award was also presented Memorial Day afternoon for second and third place lake trout catches, in addition to first, second, and third place in a division for brown, landlocked, and rainbow trout.

While only a small fraction of Lake Trout Derby participants took home cash prizes, it could be seen as a win for all those concerned about the health of Seneca Lake fish. This year's derby marked the second year that competing anglers' catches helped a comprehensive study of Seneca Lake fish stock health.



- *How many Pure Waters volunteers does it take to collect a fish sample?*

This was made possible thanks to anglers donating parts of their catches to be dissected and used as samples for the study spearheaded by the Finger Lakes Institute and Seneca Lake Pure Waters Association.

Although the research team was a few rainbow trout short of their collection goal, in total they collected tissue from 10 lake trout, 10 landlocked salmon, 7 rainbow trout and 10 brown trout, said Mark Petzold, a board member of the Seneca Lake Pure Waters Association.

Samples from a few additional fish species were also examined to study the lake's overall food web health. As a part of donating samples, the study's volunteers would fillet the fish for the fishermen.

The anglers were great contributing fish and appreciated us filleting their fish!" Petzold said. Twenty Seneca Lake Pure Waters Association volunteers generously donated their time dissecting fish and working at a fish weighing station.

The idea to connect the derby to a fish health study first came about in 2022, Petzold explained. That year, Seneca Lake Pure Waters teamed up with the

Finger Lakes Institute (FLI) to start a fisheries initiative. Getting samples for this study from the derby “was a natural fit” Petzold said.

“Bob Stivers [of Stivers Marina] was extremely gracious in allowing us to set up the dissection tables and promote the testing at the derby this year,” Petzold said.

The research team from the Finger Lakes Institute includes Lisa Cleckner, Susan Cushman and Roxanne Razavi of the State University of New York College of Environmental Science and Forestry (SUNY-ESF).

Petzold explained the study is focused on understanding three aspects of fish health. The first is the diets of the fish. This involves the dissection of fish stomachs to identify what they recently ate. Stable isotope analysis is also done to determine what the fish have eaten in the past.

Another aspect of the fish study is testing fish flesh for mercury levels. Mercury is a chemical that is naturally occurring but is released into the atmosphere by human activities, such as burning oil and other fossil fuels. Mercury accumulating in the environment can cause significant health concerns for animals and people, including brain, heart, kidney, lung, and immune system harm.

The flesh of fish are also tested for PFAS levels. PFAS is the acronym for a group of chemicals called per-and polyfluoroalkyl substances. There are more than 9,000 man-made chemicals in this group found in a long list of industrial and consumer products, including artificial turfs and the nonstick coatings used on pans.

PFAS have been linked to concerning health conditions including increased cholesterol levels, liver enzyme changes, decreased infant birth rates, increased blood pressure and pre-eclampsia in pregnant women, decreased childhood vaccine response, and an increased risk of testicular and kidney cancers, according to the Centers for Disease Control and Prevention.

The results of samples from this year’s lake trout derby are not yet available, but the results from last year’s samples showed that 70 percent of the sampled fish’ diets were made up of the invasive fish species alewife and four percent of the native species sculpin, Petzold said.

Mercury levels in 2022 were at 350 parts per billion (ppb). This is similar to levels collected in 2016, which were 320 ppb. While these levels are under the New York State Department of Health (NYS DOH)’s general advisory limit of 1,000 ppb, they are above the Environmental Protection Agency (EPA)’s limit of 300 ppb for consumption.

This discrepancy is because states can set their own mercury consumption limits, Petzold said.

Regarding PFAS, 2022's study showed that fish flesh samples had levels that were consistent with the results of a [New York State Department of Environmental Conservation \(DEC\) study](#) from 2020. One of the most common PFAS chemicals is perfluorooctane sulfonate (PFOS). The 2020 study found that 27 of 34 tested fish had PFOS levels that were above 2,000 parts per trillion, according to journalist [Peter Mantius's blog Water Front](#).

For five of the fish, this level was 15,000 parts per trillion. This is under the DOH's concentration for an advisory against eating fish, which is 200,000 parts per trillion. However, the DOH considers 10 parts per trillion too high a concentration of PFAS to safely have in drinking water, and the EPA considers 4 ppt in drinking water an unsafe level, Petzold explained.

"The DOH has not explained the discrepancy [between safe PFAS levels in water and fish], so Seneca Lake Pure Waters recommends anglers read the available articles and make their own decision," Petzold said.

The fish study is expected to continue for two more years of the derby, Petzold said. "It is important to continue to monitor the fishery as the DEC rotates their attention across all the lakes," he added.

Since each lake contends with unique industries and pollution problems, Petzold explained he hopes other lake associations consider connecting a fish health study to a fishing competition.

"It is a great model for other lakes to consider," he said.

Anglers can also add to research about fish health by recording information about their fishing trips any time of year in [DEC Angler Diaries](#). These are diaries the DEC provides to fishermen allowing them to record information about their catches in the Finger Lakes to help biologists understand more about managing fish health and populations. This includes the size of catches, scars from invasive lamprey eels, and the time of catches.

"Year round participation from the anglers is important," Petzold said. "The Derby provides one view of the fishery. Growth in the use of the DEC Angler Diary would provide additional data that can be used to determine the health of the fishery."

SENECA PURE WATERS & BILLSBORO WINERY
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8 billsboro



Girl Scouts of America Teach Lake Friendly Living

Kaitlin Fello



Lake Friendly Living is an essential concept that emphasizes the importance of responsible and sustainable practices to protect and preserve our lakes and their ecosystems. It recognizes that our actions as individuals and communities can have a profound impact on the health and well-being of these precious natural resources. By adopting lake friendly practices, we can ensure the long-term viability of our lakes and enjoy their beauty and benefits for generations to come.

Initiatives surrounding Lake Friendly Living aim to raise awareness about the significance of our actions on lakes, educate communities on best practices, and promote sustainable behaviors. These initiatives often focus on reducing pollution, conserving water, and preserving the delicate balance of lake ecosystems. They encourage practices such as proper waste disposal, limiting the use of fertilizers and chemicals near the lake, responsible boating and fishing, and promoting native plant species to prevent erosion. By embracing Lake Friendly Living, we become stewards of our lakes, working collectively to safeguard water quality, protect wildlife habitats, and maintain the natural beauty that makes lakes such cherished recreational and ecological assets.

Girl Scouts is an organization that empowers young girls to develop important life skills and become leaders in their communities. One of the fascinating badge categories offered by Girl Scouts is "Wonders of Water." These badges encourage girls to explore, learn about, and take action to protect our planet's most precious resource - water.

Through engaging activities and hands-on experiences, the Wonders of Water badges provide girls with valuable knowledge about water conservation, the water cycle, and the importance of clean water for all living beings.



The 3rd Annual Lake Friendly Living Awareness Month of May, 2023 focused on making an impact in communities across the Finger Lakes. The Seneca Lake Pure Waters Association partnered with a local Girl Scout Troop to teach about invasive species management, water quality monitoring programs, and Lake Friendly Living and highlighted the importance of planting native plants. After two preparation meetings, the Girl Scouts and Seneca Pure Waters were present at the Geneva Farmers' Market and encouraged consumers to take the Lake Friendly Living Pledge, giving away free native seed paper, which were hand made at a Girl Scout Troop meetings in May. The partnership helped the Troop earn one of their four "Wonders of Water" badges by educating the public on Lake Friendly Living Practices.

By earning Wonders of Water badges, Girl Scouts not only gain knowledge about the importance of water conservation but also develop leadership skills and a sense of responsibility towards the environment. These badges foster a deeper understanding of the interconnectedness of water with ecosystems, human communities, and the global environment.

The Wonders of Water badges empower Girl Scouts to become champions for water conservation and environmental sustainability. Through these badges, girls develop a lifelong appreciation for water resources and the critical role they play in our lives. By instilling a sense of stewardship and inspiring girls to take action, the Girl Scouts Wonders of Water badges ensure that the next generation is equipped with the knowledge and passion needed to protect our planet's water sources for future generations.

SNPR Hits its 3rd Season in Full Swing

Ron Klinczar



Our Pure Waters Sediment, Nutrient, and Pollution Reduction Program (SNPR) is going strong in parallel with the summer growing season. Since our initial funding of the early studies of the Keuka Outlet project, we have now engaged in projects with our Soil and Water Conservation District partners and continue to work closely with the Seneca Watershed Intermunicipal Organization (SWIO).

At the Keuka Outlet, the Crooked Canal Wetland Retention Project is now in the final design stage with blueprints being developed, under the watchful eyes of our Lake Steward, Ian Smith. Ian reports that the project is on target for

2024-2025 construction. This project will reconnect wetlands to the outlet, allowing for high storm event waters to enter the wetlands and allow sediments to settle out there. There are about eight wetland areas that appear to be viable to receive this treatment. Large pipe conduits will convey the water from the outlet to these wetlands, which will help to nourish them while keeping those sediments out of the lake.

Here is an update on the new projects that Pure Waters has funded for 2023:



In Seneca County, the Darcy Ponds project has recently been constructed! Two Water and Sediment Control Basins (WASCoB's) will capture and convey stormwater to these basins, which will allow sediment to settle prior to being discharged toward the lake. However, the drought conditions seen in May and June have not allowed vegetation to take on the pond area. The County Soil and Water Conservation District has used straw mulch and is monitoring the situation. Ideally, we will get some precipitation to germinate the seed, without a large storm event that could result in erosive action at the pond.

Seneca County SWCD's other recently awarded project is at Tommy Creek adjacent to Ovid-Lodi Townline Road. Although limited tillage practices, strip cropping, and cover cropping have been applied to the crop fields near the headwaters of Tommy Creek, there is still significant erosion and soil loss occurring. The farmers solicited the help of Seneca County SWCD to provide recommendations and a design that would prevent erosion, soil loss and foster improved climate resiliency. The proposed project includes a Water and Sediment Control Basin with Underground Outlet that will capture and convey water to a basin, making farmland more adaptive and resilient to increased storm events. Right now, crops are being grown in the adjacent fields. Once these crops are cleared in early fall, the District will undertake installation of the stormwater management pond near the Tommy Creek headwaters.

In Schuyler County, their hydroseeding program has seen the spraying of over 50 acres of ground and ditch cover! Perhaps you have seen hydroseeding, which is a mixture of seed and fertilizer in a paste that generally holds to allow grass to germinate. Due to the dry spring has led to the District temporarily stopping this application until some rain is seen.

Pure Waters has also funded Schuyler County cover crop application for a second year. Since the county has its own interseeder, we are helping to fund the seed purchase. Of course, cover crop plantings will occur as the summer gets underway and into the fall.

Ontario County SWCD also has two in-process projects that Pure Waters' SNPR program is funding. The Castle Creek project in Geneva will stabilize portions of the creek that are subject to erosion. The final design has been approved and permit applications to agencies have been submitted. Property entry permissions for neighboring properties have been obtained and the City of Geneva has completed some site preparation work. Construction should take place in August when permits have been received and Ontario County DPW can schedule.

The second project involves the Armstrong Road community, where upland water retention is proposed to reduce concentrated flows on private lands, benefiting neighborhood properties. Preliminary design has been developed, and once the design has been finalized, the District will coordinate with a private contractor for the work. Ontario County is looking at late summer construction.

In summary, projects that retain water upland of steep slopes that surround Seneca Lake are good for capturing sediments and reducing phosphorus pollution entering Seneca Lake. Vegetated lands and ditches also slow erosion and allow phosphorus and nitrate carrying sediments to settle out. Our SNPR team remains committed to looking for projects that achieve this goal. Your donations and volunteer contributions help all of us maintain Seneca Lake for people to use and enjoy!



DID YOU KNOW?



Each month, Seneca Pure Waters joins Ted Baker on the **FLX Morning Podcast** to discuss current topics regarding Seneca Lake water quality.

Check out Ted's most recent interview with Board Member Frank DiOrio [HERE!](#)

SUMMER RECREATION

Exploring the Abundant Summer Outdoor Recreational Opportunities Surrounding Seneca Lake

Deanna Fello



Nestled amidst the picturesque Finger Lakes region of New York State, Seneca Lake offers a haven for outdoor enthusiasts and nature lovers. With its stunning natural beauty and diverse landscapes, the area surrounding Seneca Lake presents an array of outdoor recreational opportunities for visitors and residents alike. Whether you enjoy hiking, boating, fishing, or simply immersing yourself in nature's tranquility, this region has something to offer everyone. Get ready to embark on an adventure and discover the wonders that await you along the shores of Seneca Lake.

U-PICK FRUIT FARMS



Around Seneca Lake, you can find several "U-pick" fruit farms that offer a delightful experience of picking your own fresh fruits straight from the fields. Here are a few farms in the area that allow U-Pick option for apples, grapes, peaches, and more!

• [**Fulkerson Farms**](#), located at 5576 Route 14, Dundee, NY 14837

• [**Juneberry Farm**](#), located at 6960 1st St, Ovid, New York 14521

• [**Reisinger's Apple Country**](#), located at 2750 Apple Lane (Off Ellison Road), Watkins Glen, New York 14891



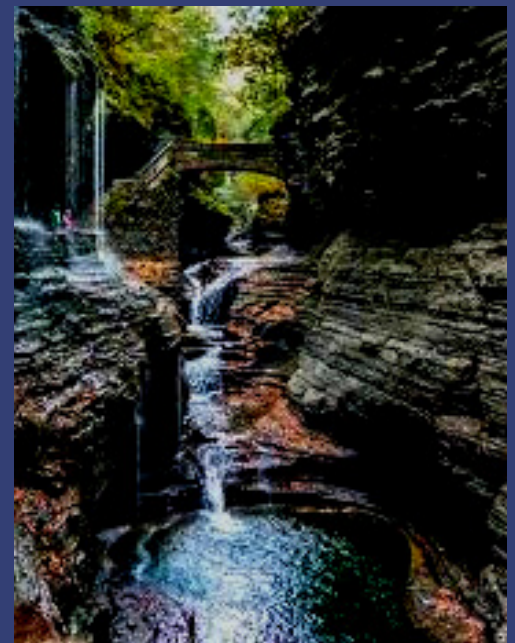
WATER ACTIVITIES



Seneca Lake, renowned for its crystal-clear waters, provides a playground for water enthusiasts. Rent a kayak, canoe, or paddleboard at our member businesses, [Stivers](#) or [Roy's Marinas](#), to explore the tranquil lake at your own pace. Fishing enthusiasts will find ample opportunities to cast their lines and try their luck at catching trout, bass, and other species that inhabit the lake's depths (Check out [Roy's Boys Fishing Charters](#).) Boating enthusiasts can rent boats at Stivers and Roy's and enjoy the gentle breeze as they navigate the expansive waters, taking in the stunning views of vineyards, rolling hills, and charming lakeside towns.

HIKING AND NATURE TRAILS

For those seeking scenic vistas and invigorating hikes, the trails surrounding Seneca Lake are a treasure trove. Explore the breathtaking [Watkins Glen State Park](#), where you can meander through lush forests, past enchanting waterfalls, and along stone staircases carved into the gorge. [The Finger Lakes National Forest](#) beckons with its miles of trails, offering opportunities for leisurely walks or challenging treks. As you traverse the trails, be prepared to encounter diverse flora and fauna, creating a captivating experience for nature enthusiasts.



BREWERY TOURS AND SCENIC DRIVES

Beyond the recreational activities directly on the lake, the surrounding area offers a scenic paradise for those who enjoy leisurely drives and beer or wine tasting. The Seneca Lake Beer Trail showcases over 20 breweries that dot the landscape, each offering unique flavors and breathtaking views. The [Seneca Lake Order of Breweries](#) in the Finger Lakes depend on Seneca Lake for their #1 ingredient and will pay tribute to the Lake this coming July with Seneca Pure Waters during the 'Seneca Lake Pure Waters Beer Week'. Stay tuned for more info on PURE BEER Week as we approach July!



The outdoor recreational opportunities surrounding Seneca Lake are abundant, offering something for every nature enthusiast. Whether you seek adventure on the hiking trails, peaceful moments by the water's edge, or the indulgence of a beer tasting experience, this region captivates with its natural beauty and diverse offerings. Embark on a journey of exploration, immersing yourself in the wonders of Seneca Lake. Whether you're a local resident or a visitor, the outdoor recreational opportunities surrounding Seneca Lake promise memories that will last a lifetime. So, pack your bags, grab your hiking boots or swim suit, and get ready to create unforgettable moments in the heart of the Finger Lakes.

New HABS and PFAS Filter Being Installed by the Village of Waterloo

Shannon Hazlitt-Harts



While Seneca Lake's water can look crystal clear on a calm day, the lake is not immune to contaminants that have been making national headlines. Two different contaminants of particular concern for their health consequences are harmful algal blooms (HABs) and PFAS (Per- and Polyfluorinated Substances).

The good news is that the Waterloo Water Treatment Plant, located on the northeastern shore of Seneca Lake, is installing a new system this summer to filter out these pollutants. The plant draws water from Seneca Lake and serves approximately 15,000 people.

"This system is being installed as it is important for me to have the necessary tools in my toolbox in order to deal with these contaminants as well as exceed US EPA [United States Environmental Protection Agency] regulations," said Jim Bromka, Director of Water Treatment at the Waterloo Water Treatment Plant.

In March, the EPA proposed the establishment of legally-enforceable maximum levels of six PFAS chemicals that have been found in drinking water.

PFAS are a group of chemicals designed to make products

that resist stains, grease, heat and oil. They are also used to make fluoropolymer coatings which have non-stick properties and are resistant to chemicals, friction, heat, and abrasions. While useful for a huge variety of everyday items, from cleaning products to nonstick pans, PFAS don't break down in the environment. They have been known to contaminate drinking water and build up, or bioaccumulate, in people and animals. Health problems from PFAS include increased cholesterol levels, liver enzyme changes, decreased vaccine response in children, decreased infant birth weight, and an increased risk of kidney or testicular cancer in addition to high blood pressure in pregnancy.

HABs happen when algae and microorganisms called cyanobacteria grow uncontrollably in bodies of water.

The overgrowth of HABs can look like bright green and blue streaks or pea soup floating on the water. HABs create toxins and deplete oxygen in the water, killing off underwater plants and animals. Exposure to HABs from eating contaminated food has caused stomach and neurological illnesses in people. The cyanobacteria *Microcystis* produces a particularly nasty toxin which can cause diarrhea, vomiting, and liver damage to people exposed to it, and it can even kill animals.

The new system being installed by Waterloo will use horizontal pressure filters to filter out the algae, Bromka said. This process will attempt to prevent cell lysis, or the breakdown of a cell due to damage to its outer membrane, causing it to spill its "guts," Bromka explained.

When the cells break open, they release their potential toxins. If they stay whole, they are harmless, Bromka said.



The horizontal pressure filters will aim to capture the whole algal cells without allowing them to lyse so that they can be washed off the filters and removed from any potential drinking water. Bromka compared this to capturing water balloons with a spaghetti strainer without letting the balloons pop.

Any fluids from HABs that are lysed along with any PFAS will then be absorbed by granular activated carbon in carbon filter units, Bromka said. Chlorine can also be added to the water as a preemptive means to neutralize Microcystin and additional chlorine can be added as needed to address any particularly concerning HABs, Bromka explained.

The new system's filter and carbon units can handle about 3.5 million gallons of water each day, Bromka said.

Activated carbon is a material that is porous. It removes organic compounds from liquids and gasses through adsorption, or a process in which the organic molecules of a liquid or gas are attracted and bound to the activated carbon's porous surface, according to Calgon Carbon, the company that created the filtration system.

"I refer to them as giant 'Britas,'" Bromka said, referencing how the popular brand of home water filters, Brita, also use activated carbon. Britas use activated carbon to reduce the taste and smell of chlorine, in addition to the contaminants copper, mercury, and cadmium.

While most plants that clean-up drinking water use carbon, Bromka said the combined use of the horizontal pressure filters followed by the granular activated carbon units "will be a first for us."

Calgon Carbon claims the filtration system can filter 99.9 percent of all



HABs and PFAS contaminants, Bromka said.

He also noted that chlorine dioxide is used as the primary disinfectant to effectively neutralize bacteria.

“We expect to have very clean and safe water,” he said. “Likely unique to the industry.”

The new filtration system is expected to be fully installed and online sometime before the end of August.

The system is designed to treat water for the general public for nearly a third of Seneca County public water, which includes the village, schools, parks, and a prison, Bromka said.

However, other homes and cottages on the lake can help filter their water for PFAS and HABs by installing a filter that uses carbon and reverse osmosis, Bromka explained. Reverse osmosis is a water purification process that involves pushing water under pressure through a membrane that’s semi-permeable to demineralize or deionize it.

While the new Calgon Carbon system comes with the price tag of more than \$3 million, Bromka said he believes it could help with the Waterloo Water Treatment Plant’s goal of being, “ahead of even the next contaminant which may be found in the lake.”

“Today’s unbelievable detection levels at parts per trillion could one day go to the next level: parts per quadrillion,” he said.



SAVE THE DATE!

Seneca Pure Waters & ACME Mystery Co.
present
2023 ANNUAL DINNER FUNDRAISER
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MYSTERY TWIST!

Everyone's a suspect
Can you figure out who did what?

THURSDAY AUGUST 24, 2023

5:30PM onwards

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Geneva, NY 14456

DETAILS COMING SOON!



The Implications of the Spotted Lanternfly's Infestation in the Finger Lakes

KAITLIN FELLO



The spotted lanternfly (*Lycorma delicatula*) is an invasive insect species native to Asia. Since its accidental introduction to Pennsylvania in 2014, it has rapidly spread to other states, including New York. The presence of the spotted lanternfly (SLF) can have negative impacts on various native species, not just in the context of the wine and grape industries, but also in terms of ecological balance and biodiversity.

The introduction of an invasive species like the spotted lanternfly can disrupt ecological relationships within native ecosystems. For example, native insect populations that rely on the same food sources as the lanternfly may face competition and reduced resources.

Additionally, changes in tree health and plant diversity caused by the lanternfly's feeding activity can alter habitat conditions for other organisms, including birds, mammals, and other insects.

It's important to note that the full extent of the spotted lanternfly's impact on native species is still being studied. Researchers and conservationists are actively investigating its ecological consequences to understand the long-term effects on native ecosystems and develop effective management strategies. Early detection, monitoring, and targeted control efforts are crucial in minimizing the potential harm to native species and preserving ecological balance.



Locally, the Finger Lakes Institute managed Partnership for Regional Invasive Species Management (PRISM) runs a monitoring program, using SLF traps placed along major corridors and interstates that may allow the invasive species to spread more rapidly. If you are interested in monitoring a SLF trap in the Finger Lakes, contact Matt Gallo at gallo@hws.edu.

Just a few examples of native species that could be negatively affected by SLF are:

Trees: The spotted lanternfly feeds on the sap of a wide range of trees, including native species such as maple, oak, walnut, and willow. Large populations of spotted lanternflies can cause extensive damage to these trees, leading to weakened health, defoliation, and, in severe cases, tree mortality. This can disrupt forest ecosystems and affect other organisms dependent on these trees for food and habitat.

Fruit orchards: In addition to grapes, spotted lanternflies also feed on various fruit trees, including native species such as apple, peach, cherry, and plum. Infestations can lead to reduced fruit production, damage to the fruit itself, and increased susceptibility to other pests and diseases. This can impact not only commercial fruit orchards but also wild fruit-bearing trees that provide food for native wildlife. Grapes and apples are amongst the top grossing agricultural products in NYS.

Agricultural crops: The spotted lanternfly is known to feed on a range of agricultural crops, including native plants such as blackberries and hops. In addition to causing direct damage to these crops, infestations can lead to yield loss and decreased quality, impacting farmers and potentially affecting the availability of these crops in local markets.

The Finger Lakes region is known for its vineyards and wineries, particularly those located around the eleven long, narrow lakes in the area. According to a report released by the New York Wine & Grape Foundation in 2017, the wine and grape industry in the Finger Lakes generated over \$1.5 billion in 2016. This includes direct contributions from wineries, vineyards, and related businesses, as well as indirect contributions through tourism, hospitality, and other industries that benefit from wine-related activities. The industry supports more than 58,000 jobs in the Finger Lakes region, having a positive impact on the local economy, providing employment opportunities and income for individuals and families.

The presence of spotted lanternflies can result in significant economic losses for the wine and grape industries. Spotted lanternflies primarily feed on the sap of more than 70 different plant species, including grapevines. They use their piercing-sucking mouthparts to extract sap from the plant, causing significant damage and crop loss. Large infestations of spotted lanternflies can lead to defoliation, weakening the grapevines, and reducing their ability to photosynthesize and produce grapes.

The damage caused by these insects leads to reduced grape production, lower-quality grapes, and increased

production costs due to the need for pest control measures. This can have a ripple effect on wineries, vineyards, and related businesses, potentially leading to job losses and financial strain.

In areas where spotted lanternflies have established populations, agricultural authorities often impose quarantines and restrictions on the movement of agricultural goods, including grapes and grapevine materials. These measures aim to prevent the spread of the insect to new areas but can create logistical challenges for businesses involved in the wine and grape industries, impacting trade and market access.

Efforts are underway to control and manage the spread of spotted lanternflies through the use of insecticides, traps, biocontrol methods, and public awareness campaigns. However, the invasive nature of this pest and its ability to reproduce rapidly pose ongoing challenges for the wine and grape businesses, necessitating continuous monitoring and control measures to mitigate its harmful effects.

If you'd like to learn more about research of the Spotted Lanternfly through Cornell's Integrated Pest Management program, watch the Seneca Pure Waters hosted [WEBINAR](#) with Bryan Eshenaur on our YouTube channel.

MEMBER SURVEY RESULTS

For the past three years, the Seneca Pure Waters' leadership has taken the opportunity to collect feedback from the membership on the Association's water quality, communications, education and fundraising efforts. We asked about member interests and where we as an association can provide the most value to our members, along with where we have the most significant impact on the health of our lake. We asked if our members prefer in-person or virtual events, and if our e-news is the best source for Seneca Lake news. This member feedback provides guidance for our decisions and planning for the upcoming year. We thank the 119 individuals who took the time to provide feedback. The survey results suggest that we are doing well as an association, with over 91% of respondents indicating that they are either satisfied or very satisfied with the association's work. The rest of the survey results are categorized below by Demographics, Water Quality, Communications, Events, and Volunteering.

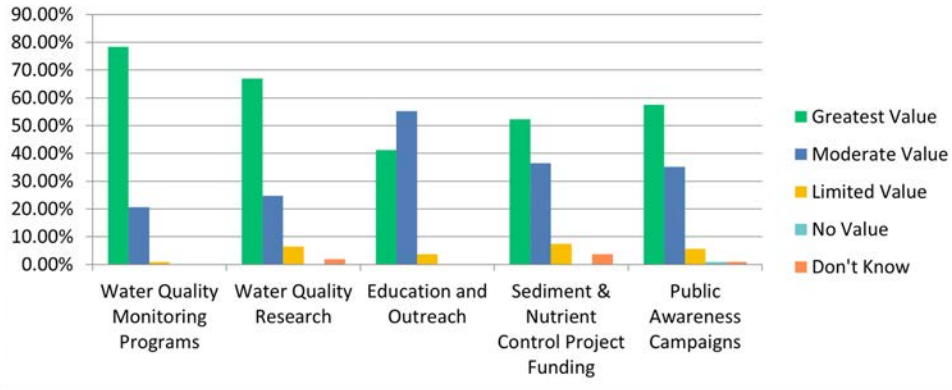
DEMOGRAPHICS

Over 60% of the survey respondents are over the age of 65, while only 5% are younger than 35. 72% indicated they live on the lake either year around or for part of the year. 5% do not live near Seneca Lake, but either vacation here, or grew up around the lake.

WATER QUALITY

- Topics that the membership would most like to learn more about:
- Harmful Algal Bloom Research: 66%
- Fish Population and Management: 56%
- Regional efforts to protect the Finger Lakes: 59%
- Aquatic Invasive Species: 55%

In your opinion, what types of Pure Waters' activities deliver the most value for the protection of Seneca Lake water quality, and for you as a community member?



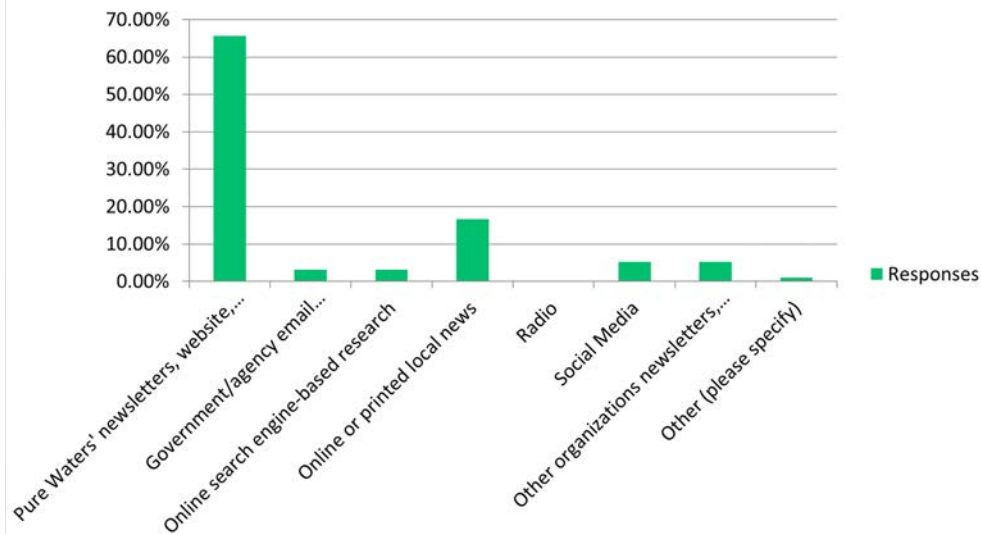
COMMUNICATIONS:

Most survey respondents suggested they would like to receive Seneca Pure Waters e-news on a monthly basis (61%), and over 80% read our monthly LAKEWATCH Newsletter.

MEMBERS WERE FIRST INTRODUCED TO SENECA PURE WATERS BY:

- Friend, neighbor, or family member: 41%
- Newspaper or electronic news: 15%
- Mailing: 10%
- Social Media: 10%
- Board Member: 8%
- A founding member in 1991: 6%
- Another local Organization: 2%
- Radio: 1%

What is your main source for Seneca Lake information?



HABS VOLUNTEERS NEEDED!



For many years, Seneca Lake Pure Waters Association, the Finger Lakes Institute (FLI) and the New York State Department of Environmental Conservation (NYS DEC) have been working together to raise awareness, monitor the lake, and notify the public of harmful cyanobacteria bloom locations on Seneca Lake.

Cyanobacteria, commonly known as blue-green algae or harmful algal blooms (HABs), are found worldwide, especially in calm, nutrient-rich waters.

Unfortunately, some species of cyanobacteria produce toxins that may negatively affect the health of animals and humans thus requiring a public notification or alert system.

From August to October, volunteers monitor 60 miles of Seneca Lake's shoreline and submit reports via a simple phone app when a bloom is detected. Typically blooms occur on calm days, but specific reasons why a bloom occurs one day and not another day are still a mystery.

Pure Waters is always looking for new volunteers to monitor the lake and coordinate our large volunteer network. We especially need volunteers in the southwest and southeast areas of the lake. Our organization has one person who oversees the entire program. That person works with regional coordinators who in turn assists the volunteers in each of the four regions. Pure Waters provides training on how to identify and report a bloom. Training only takes an hour or two of your time and is done remotely and/or in person. **This years trainings will be held on July 13th in Geneva and July 27th in Burdett.** Reporting is quite simple, take a picture of the bloom and report it via an app on your phone.

More detailed information on the program can be found on our [WEBSITE](#)



IN MEMORIAM

We extend our heartfelt gratitude to all those who have chosen to honor their loved ones' memories through generous donations. Your thoughtful contributions not only commemorate the lives of those dear to you but also make a meaningful impact in our mission. We are deeply grateful for your kindness and compassion, and we assure you that your donations will be used diligently and effectively and that honors the memory of your loved ones. Thank you for your generosity and for entrusting us with the opportunity to honor and remember those who have touched our lives so deeply.

Generous contributions have been recently made in memory of:

Matthew Perry
&
Michael Yonko

Memorial Donations
Made 3/15 – 6/6

Lakewatch Advertising

Quarter Page Banner Advertisement

To purchase a quarter page banner advertisement in the LAKEWATCH Newsletter, print this page and mail to Seneca Pure Waters

Distribution: 1700 contacts, four times per year

Dimensions: 6.5" width x 2.25" height

\$200

FIRST NAME _____

LAST NAME _____

EMAIL _____

BUSINESS NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

Make checks payable to:

Seneca Lake Pure Waters Association

P.O Box 247, Geneva, NY 14456

[CLICK HERE](#)
[TO MAKE YOUR](#)
[PAYMENT ONLINE!](#)

All of the funds raised by Seneca Pure Waters supports projects and programs that benefit the Seneca Lake watershed, the drinking water for residents, the economic value for business owners, and the quality of life for all who encounter it.

Become a Seneca Pure Waters Volunteer!

It takes many hands to build and manage Pure Waters' programs. It also takes many hands to manage our overall Pure Waters organization.

That's where your skills come in. We need your help supporting our organization as we work to deliver on our mission to Preserve, Protect, and Promote Seneca Lake water quality.

No matter what skills you have, we can put them to good use!

[CLICK HERE](#) to learn more about becoming a volunteer!

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