

**Mission:**

*Enhance and preserve the quality of Seneca Lake*

**Executive Committee:**

Richard Weakland, President  
Dan Corbett, VP of Water Quality  
Peter Muller, Secretary  
Frank Case, Treasurer

**Board of Directors:**

Richard Ahola  
Robert Barton  
James Bromka  
Thomas Burrall  
Stacy Clark  
Kelly Coughlin  
Jacob Fox  
Sayre Fulkerson  
Henry Kimball  
Lawrence Martin  
William McAdoo  
Tim McDonald  
Kevin Roe  
John Socha  
Robert Schrader  
Leigh Triner  
Jacob Welch

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



2018



**Annual Meeting  
& Dinner**



You are cordially invited to the 2018 Annual Meeting & Dinner

August 23, 2018

Watkins Glen Harbor Hotel  
16 N. Franklin St.  
Watkins Glen, NY 14891

Wine Reception 5 pm  
Music by Radio London

Guest Speaker  
Liz Moran, PhD

President of EcoLogic LLC

\$45.00 pp for Buffet Dinner  
R.S.V.P. by August 17th  
at [senecalake.org](http://senecalake.org)

Guest speaker, Liz Moran, will discuss the importance of the next step to restore Seneca Lake, with the development of a 9 Element Plan, which will pinpoint the pollution in Seneca Lake, where it comes from and how to help and prevent it in the future.

Liz Moran has been the Principal Scientist of EcoLogic since its founding in 1997. She has more than 30 years of professional experience in water resources, with a focus on limnology, water quality, and protecting and restoring lakes and watersheds. She has designed and implemented complex water quality and biological monitoring programs to characterize reservoirs, lakes, streams, rivers, and estuaries. Liz holds an MS in Aquatic Science and a PhD in Water Resources from Cornell University.

**Live Auction**  
including  
Adirondack Guide Boat  
custom built by Shumway Marine

Donated by  
Kenneth & Susan Fisher  
Glenora, NY

\$3,000 value. The oars are cherry wood with Shaw & Tenney bronze oar locks, hardware and trailer.



## **Membership Committee Report**

*By Tom Burrall, Membership and Fundraising Committee Chairperson*

Seneca Lake Pure Waters Association is thankful to have membership support from the greater Seneca Lake community. Membership dues, donations and grants help to fund our water quality monitoring programs and our efforts to restore and preserve Seneca Lake for future generations.

Share your love for Seneca Lake by proudly displaying your PURE WATERS membership sticker in a visible space. Thank you for your continued membership support.

## **Financial Report - Fiscal Year 2017- 2018**

*By Frank Case, Treasurer*

At year-end, assets of the corporation were \$130,664.57 with no outstanding liabilities. Income totaled \$85,965.15 and expenses were held to \$68,159.04.

## **Finance Committee Report: Internal Audit for Fiscal Year 2017- 2018**

*By Richard Ahola and Peter Muller, Board Members*

Board members, Richard Ahola and Peter Muller, examined Seneca Lake Pure Waters financial documents at treasurer Frank Case's home office and the office of John Knifley, CPA, the association's accountant, for the fiscal year June 1, 2016 to May 31, 2017. They reviewed procedures related to Pay Pal, handling of mail donations, memberships, bank deposits and accounting for assets including grants from Freshwater Future and the Tripp foundation. The auditors examined revenue and expense statements and the balance sheet for May 31, 2017. They reconciled entries on IRS form 990-EZ. Total liabilities and equity matched assets.

The internal auditors expressed appreciation to Mr. Case and Mr. Knifley for their patience and cooperation.

## **LPG Storage Permit Denied**

*By Ed Przybylowicz*

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos announced his decision to deny a permit to expand storage of LPG in abandoned salt mines bordering Seneca Lake on July 12, 2018.

At the 2016 NYS DEC Issues Conference, Seneca Lake Pure Waters Association raised valid technical arguments against this proposal. Pure Waters worked with other organizations who raised business, social and health issues related to this project. Pure Waters members wrote to the DEC and Governor regarding the negative impact and hazards that this project posed for our lake and its communities.

Administrative Law Judge, James T. McClymonds, decided that the issues raised did not reach the level of concern to require a full court hearing, which favored the DEC's early predisposition to permit this project.

However, recent measurements of gas leakage from the caverns, provided evidence of the predicted hazards, which led to Commissioner Seggos to concluded that this project was not in the best interests of our region.

We thank the many people who worked to research and present the technical hazards associated with the storage of gas in the salt caverns, in particular, the leadership of Phil Cianciotto, Mary Anne Kowalski, Rachel Treichler and our geology experts: Professor Alberto Nieto (University of Illinois), Dr. Ray Vaughan (Consultant) and Professor Richard Young (SUNY Geneseo). Members of Pure Waters can be proud of their efforts to bring about this outcome.

# Communications Committee Report

*By Stacy Clark, Communications Committee Chairperson*

The Communications Committee achieved many goals in the past year, helping to advance efforts to identify the organization and optimize the ability to reach out and educate Seneca Lake communities about important lake issues.

We continue to write proposals for funding, provide materials and support for activities like the HABs Forum and the Seneca Lake Summit in Geneva, participate in fundraisers like the Beer Benevolence at Grist Iron Brewery and Pasta Night at Glenora Winery's 'Veraisons' Restaurant, and even sponsor a cardboard boat entry into the Regatta at the Watkins Glen Village Marina. Fun times are had by all, and we work hard to maintain the membership materials so we can continue to improve our community outreach with more membership and volunteers.

The first Friday of every month, we have our very own "Voice of the Lake", board member John Socha, sharing lake information with listeners on WGVA, Finger Lakes Radio, with host Ted Baker. The website [www.senecalake.org](http://www.senecalake.org) has been redesigned and transcripts of past presentations are available. We are emailing our 500+ members a monthly newsletter filled with our current events and tips on Lake Friendly Living. The social media site on Facebook, has a great following and you can find out about all our activities with us there as well. Thank you to all our volunteers and board members who make this happen!

With professional assistance, we redesigned the existing logo to reflect some of the visual identity of the very first logo from over 25 years ago. We wanted the new emphasis to be PURE WATERS, using this shortened version as our new moniker, versus using the acronym PURE WATERS. The new design is an easy to identify graphic, great for use in social media settings, one that sets the organization apart with the incorporation of the watershed visual. Many thanks to Proforma Shrader&Shrader and their design staff for making this great visual happen!



Original Logo



Revised Logo



New Logo

At last years annual meeting, we brought you "A Homeowners Guide to Lake-Friendly Living" and hope that everyone who lives lakeside, now knows how they can help to keep Seneca Lake pure. Every little bit helps and even simple measures can make a difference and have a positive impact on the lake's water quality. But as you know, Seneca Lake is a destination for many visitors from out of the area, who may just come for a day to enjoy the lake and bring their watercraft, large and small. This year, we introduced signs at all the public boat launch sites that show and explain how everyone can protect the lake by helping to stop the spread of aquatic invasive species and fish diseases. The signs outline simple steps to properly clean boats and fishing equipment. Being a good lake steward is another way we all can help the lake, keeping it pure for future generations to enjoy.

These simple measures can make a difference and have a positive impact on the lake's water quality. It takes a community to protect and preserve a lake. The communications committee is looking forward to an exciting new year, with increased membership, more volunteers, and more educational programs so we can continue to serve the communities with information and share how we all can help keep Seneca Lake pure for future generations!

Check out the Seneca Lake Pure Waters web site at [www.senecalake.org](http://www.senecalake.org), follow us on FaceBook, contact us with an email, and we will email you a monthly e-news letter, and with a mailing address, a copy of this newsletter that acts as our annual report. Hope to see you at a lake event soon!

# Water Quality Improvement Partnerships 2018 Initiatives

*By Richard Ahola, Water Quality Improvement Partnerships Committee Chairperson*

## **Agriculture**

The water quality partnership committee met with many partners during the winter and spring months including Klaus Martin, who is a board member of the Yates County Soil and Water District and the Soil Health Institute. Mr. Martin discussed the relationship between agriculture, climate change and the water quality of Seneca Lake. Mr. Martin who is an organic farmer urged Pure Waters to work with the county soil and water conservation districts. He also advocated that the organization work with the Farm Bureau.

## **Ditch and Stream Bank Stabilization**

The water quality improvement partnerships committee met at the Geneva conference room to hear presentations on ditch and stream bank presentation. Jerry Verrigni, district manager of the Schuyler County Soil and Water Conservation District, discussed the use of rip rap, rock riffles, sediment traps and hydro seeding to prevent soil erosion and uncontrolled water runoff. Shawna Clark of the Natural Resources Conservation Service of the United States Department of Agriculture presented information on solving conservation problems using plants. Plants offer a natural solution for stabilizing soil and improving water quality.

## **Septic Systems**

The focus of the May committee meeting on septic system inspections and programs that are available. George Barden of the Canandaigua Lake Watershed commission highlighted Department of Health, Department of Environmental Conservation and EPA guidelines applying to septic systems. With the spread of Harmful Algal Blooms (HABs) in all the Finger Lakes there is a need to have uniform septic system standards for maintenance, design and replacement. The tools are available for use in the Seneca Lake watershed. Tad Gerace of the Ontario County Soil and Water Conservation District presented the uniform procedures program that he administers for several Ontario County towns including Town of Geneva that borders Seneca Lake. He explained the process that he uses following an inspection finding worksheet adopted in 2013. The committee expressed the sentiment that all Seneca Lake watershed municipalities should follow the same inspection, monitoring, enforcement of septic systems to keep Seneca Lake pure and minimize HABs. The committee advocated that the Seneca Lake Watershed Intermunicipal Organization asks its members to adopt a septic system regulation similar to that adopted in the Canandaigua Lake watershed, which requires the inspection of all systems that are within 200 feet of the lake every five years.

## **Nine Element Plan for Seneca and Keuka Lakes**

The committee chair supports the development of a Nine Element Plan for the Seneca Lake watershed including Keuka Lake to provide the tools necessary to improve water quality of the two lakes, which account for half of the fresh water in the Finger Lakes.



## Stream Monitoring

*By Kelly Coughlin, Stream Monitoring Team Leader*

Pure Waters stream monitoring program is entering its fifth consecutive year. Our volunteer teams--consisting of five teams of more than 60 volunteers in all--conduct sampling from Spring through Fall in Catharine Creek, Big Stream, Keuka Outlet, Kashong Creek and Reeder Creek. Each stream is sampled at several locations, from the headwaters to the mouth at Seneca Lake. Community Science Institute (CSI) of Ithaca NY, our laboratory partner in this project, conducts testing for key measures of water quality, and assists PURE WATERS in the analysis and interpretation of test results. Stream monitoring data is available for download on CSI's website and factsheets are available on the Pure Waters website.

Stream monitoring activities target sources of excess nutrients and bacteria that make their way into streams from storm-water and other upstream runoff, and ultimately affect lake health as these streams discharge directly into Seneca Lake. While water clarity, chlorophyll, and dissolved oxygen levels are relatively good, nutrients like phosphorus that are discharged from these streams is a primary source of concern. While phosphorus is not harmful to people, it is the primary nutrient causing excessive growth of algae and other aquatic plants in the lakes.

Excessive growth of algae can mean unsightly or harmful toxic algal blooms (HABs) and a reduction in dissolved oxygen needed by fish and other aquatic animals. Elevated levels of phosphorus can be reduced through reducing amounts entering the lake each year via residential, agricultural and municipal runoff. Controlling phosphorus entering the lake can help to limit the growth of living material in the lake and help to maintain good water quality.

Our findings also continue to show high levels of E.coli bacteria, an indicator of the presence of human and animal waste, which is a health concern for recreational contact and drinking water sources. Pure Waters is continuing this work to improve understanding and isolate the contributors to pollution in Seneca Lake, and to promote actions to reduce them.

Seneca Lake Pure Waters Association would like to thank the many dedicated volunteers who support this effort, and to our financial sponsors the Tripp Foundation and Fresh Water Futures. Pure Waters also looks forward to working more closely with DEC's newly-formed Finger Lakes Hub in studying Seneca Lake water quality and implementing watershed plans that use the valuable results of this monitoring program.

## Lake Monitoring Project

*By Dan Corbett*

PURE WATERS volunteers are again participating in the Citizen Statewide Lake Assessment Program (CSLAP) this summer, as part of the New York State Federation of Lakes Association program that includes all 11 Finger Lakes. This is the second year that state monies have been made available through the DEC Finger Lakes Hub for this water quality monitoring program. Sampling is done every 2 weeks for 8 total sessions from June through September. Observations are made of conditions and perceived water quality, water clarity is measured, and water samples taken for lab testing near surface and at a prescribed depth of 18 meters. Water temperatures are recorded, and the water samples are processed for shipment to the lab. Forms of phosphorous and nitrogen are measured, along with pH, conductance, and chlorophyll (and algae indicator). Data is analyzed by DEC scientists and a lake report, by site, is made available in the spring of the following year.

Two mid lake sites were monitored in 2017- one at the north end of the lake between Kashong Point and Reeder Creek area, and the other mid-lake off the Severne Point area. Results from the 2017 program have been reported by the DEC, and generally show a decline in water quality as compared to the last work of this type done in the late 1990's. Reduced water clarity and increased levels of algae and nutrients are the main elements of the water quality classification that shows this decline. Two additional sites have been added for 2018, to better represent the entire lake water quality. PURE WATERS recognizes the importance of having sound metrics of our lake water quality, and will continue to work with the DEC and NYSFOLA to generate and share this information.

# Shoreline Monitoring Program: Identifying and Reporting Harmful Algal Blooms (HABs)

By Frank DiOrio, HABs Director

Seneca Lake Pure Waters Association is diligently working to develop and implement a Harmful Algal Bloom (HABs) identification and notification process for Seneca Lake. Our Shoreline Monitoring program began in 2014 with a simple phone number, the HABs Hotline. In just four short years, the program has evolved into a successful collaboration with the New York State Department of Environmental Conservation (NYS DEC) and Finger Lakes Institute (FLI) at Hobart and William Smith Colleges.

Last year, 80 volunteers from the Seneca Lake community submitted weekly reports of shoreline observations to the NYS DEC for the months of August and September. August was uneventful, however, the last two weeks of September, the conditions were ideal for algal blooms. Pure Waters received reports of suspicious algal blooms from around the entire lake with volunteers collecting over 60 suspicious bloom samples for analysis at Finger Lakes Institute.

The laboratory tests confirmed that 50 of the 60 samples were in fact Harmful Algal Blooms and that 22 out of the 50 HAB samples produced high levels of toxins. The HABs activity on Seneca Lake in 2017 was a dramatic increase from prior years, as you can see in the summary below.

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Year	# of Samples Analyzed	# of Samples with Confirmed HABs	# of Samples with High Toxins
2014	9	0	0
2015	9	5	1
2016	12	5	2
2017	60	50	22

In 2018, the Shoreline Monitoring team is focusing on expanding coverage as shown in the table below.

	2017	2018 GOALS	2018 ACTUALS
Number of Volunteers	80	100+	105
Miles of Shoreline Surveyed	37	55	56
Number of Zones	57	75+	77
Suspicious Blooms Reported	60	TBD	TBD
Regional Coordinators	NA	4	4

## What is a Nine Element Watershed Plan?

A Watershed Management Plan (WMP) identifies water quality problems in your watershed, proposes solutions, and creates a strategy for putting those solutions in action in an effort to improve water quality. A Nine Element Plan (9E) further refines a watershed plan and is consistent with the EPA and NYSDEC frameworks.

A Nine Element Plan identifies sources of nonpoint source pollution within the watershed and engages key stakeholders in the planning process to identify restoration and protection strategies to address the water quality concerns.

According to the NYS DEC website: “9E plans use adaptive management, have strong implementation sections, are effective plans for restoration or protection, and projects identified in 9E plans are eligible for federal and state funding. Applications submitted to DEC’s Water Quality Improvement Project (WQIP) grant program that identify projects from a 9E watershed plan receive higher points.”

The nine minimum elements to be included in the watershed plan can be summarized as follows:

1. Identify and quantify sources of pollution in the watershed.
2. Identify water quality target or goal and pollutant reductions needed to achieve goal.
3. Identify the best management practices (BMP’s) that will help to achieve the reductions needed.
4. Describe the financial or technical assistance needed to implement the BMP’s.
5. Describe the out reach to stakeholders, how their inputs were incorporated and their role in plan implementation.
6. Estimate a schedule to implement each BMP.
7. Describe the milestones and estimated time frames for the implementation of the BMP’s.
8. Identify criteria that will be utilized to assess water quality improvement as the plan is being implemented.
9. Describe the monitoring plan that will collect water quality data needed to measure water quality data needed to measure water quality improvements against the criteria established in element 8.

## When in Doubt, Stay Out and Alert Pure Waters!

Cyanobacteria, often called blue-green algae, are found in lakes, ponds, and slow-moving rivers in low numbers. When the right conditions are present (nutrients, sunlight, temperature, wind), the numbers of blue-green algae may dramatically multiply or “bloom”. Harmful Algal Blooms or HABs can produce chemical toxins. If individuals or animals have been exposed to HABs and are experiencing adverse health effects, they should seek immediate medical attention.

### Report suspicious algal blooms to the Seneca Lake HABs Hotline!

**1-800-220-1609**

**[senecahabs@senecalake.org](mailto:senecahabs@senecalake.org)**

### *What do HABs look like?*

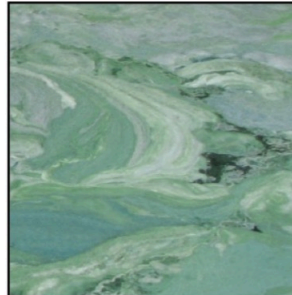
HABs have different colors and looks. Some colors are green, blue-green, brown, black, white, purple, red and black. They can look like film, crust or puffballs at the surface. They also may look like grass clippings or dots in the water. Some HABs look like spilled paint, pea soup, foam, wool, streaks or green cottage cheese curd.



green dots or globs



parallel green streaks



spilled paint



pea soup



PO Box 247  
Geneva, NY 14456

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

*Jump in and join PURE WATERS!*

Name:	Membership Level	Amount
_____	<input type="checkbox"/> Student \$10	_____
Address: _____	<input type="checkbox"/> General \$30	_____
City: _____	<input type="checkbox"/> Business \$50	_____
State: _____	<input type="checkbox"/> Additional Gift	_____
Zip Code: _____		
Phone: _____		
Email: _____	<b>Total Enclosed:</b>	_____
Lakewatch Newsletter Delivery: <input type="checkbox"/> US Postal Service	<input type="checkbox"/> Email	
Please return completed form and check made payable to:		
		Seneca Lake Pure Waters Association, Inc. PO Box 247 Geneva, NY 14456