

Waterworks

New York State Federation of Lake Associations, Inc.

August 2018

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Governor Cuomo Announces Action Plans to Combat Harmful Algal Blooms

In June, Governor Andrew M. Cuomo announced the release of 12 tailored action plans to address the causes of harmful algal blooms in priority waterbodies across upstate New York.

The increasing frequency and duration of harmful algal blooms threatens drinking water quality and the recreational use of waterbodies that are essential to upstate tourism and ecosystem health. HABs, which are formed by high concentrations of blue-green algae or cyanobacteria, can produce dangerous toxins that can harm people and animals, close economically important beaches and fisheries, and threaten drinking water supplies.

The action plans outline specific projects and programs to be implemented at priority lakes and also identify actions that can be taken at waterbodies statewide to reduce the threat of HABs. These plans are a central component of the Governor's \$65 million, four-point initiative unveiled in the 2018 State of the State to aggressively combat HABs and protect

The twelve priority lakes are:

- **Western Group: Conesus Lake; Honeoye Lake; Chautauqua Lake**
- **Central Group: Owasco Lake; Skaneateles Lake; Cayuga Lake**
- **North Country Group: Lake Champlain at Port Henry; New York portion of Lake Champlain at Isle La Motte watershed; Lake George**
- **Greater Hudson Valley Group: Lake Carmel; Palmer Lake; Putnam Lake; Monhagen Brook watershed, including the five reservoirs serving the Middletown area.**

drinking water quality and the upstate economy.

Under this initiative, the Governor's Water Quality Rapid Response Team focused strategic planning efforts on 12 priority lakes across New York that have experienced or are vulnerable to HABs. The team brought together national, state, and local experts to discuss the science of HABs, and held four regional summits that focused on conditions that were potentially affecting the waters and contributing

to HABs formation, and immediate and long-range actions to reduce the frequency and/or treat HABs. Although the 12 selected lakes are unique and represent a wide range of conditions, the goal was to identify factors

that lead to HABs in specific water bodies, and apply the information learned to other lakes facing similar threats. The Rapid Response Team, national stakeholders, and local steering committees worked together collaboratively to develop science-driven Action Plans for each of



North Country HAB Summit March 2018



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NYSFOLA's mission is to protect the water resources of New York State by assisting local organizations and individuals through public dialogue, education, information exchange and collaborative efforts.

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All letters to the editor represent the viewpoints of the author and may or may not reflect the opinion of the NYSFOLA membership or Board of Directors.

President's Letter - Donald Cook

The 35th Annual NYSFOLA Conference was held from May 4th to May 5th at Fort William Henry Hotel and Conference Center in the Village of Lake George, New York. It was my 33rd conference. The conference truly epitomized the educational goals for NYSFOLA. I hope that all who attended got as much out of the informative presentations. Each year I especially enjoy the exchange of ideas and information that come from the interaction that takes place at the break times, and during the breakfasts, lunches and dinners. Thanks goes out to all the presenters, vendors, volunteer moderators, volunteers at the registration desk and the hardworking staff of the Fort William Henry Hotel and Convention Center. Special thanks to Nancy Mueller, Theresa Mayhew, Dean Long, Richard Henderson and Walter Dutcher for organizing the best conference ever.

Welcomes go out to the new members of the NYSFOLA family. Stephanie June is the new CSLAP Coordinator. Dan Cunningham of Eaton Lake, Jan Douglass of Millsite Lake, and Gene Bolster of Conesus Lake will be joining the NYSFOLA Board of Directors.

We recently lost a long time member

of the NYSFOLA Board with the passing of George Kelley of DeRuyter Lake. George served twice as the President of NYSFOLA and played an important role in the publication of the "Diet For A Small Lake" second edition.

NYSFOLA is following the progress of Governor Cuomo's HABS Initiative. I hope that steps being taken by the initiative are more clearly outlined and communicated. I also hope that the regional meetings and the annual conference will play a role in communicating the progress of the programs at the 12 lakes involved. Also, I will work to make sure that NYSFOLA will play an important role in passing on what is learned at these 12 lakes to lakes of similar make up.

Summer has finally come to Honeoye Lake. We are working on our plant survey, water quality testing and climate studies.

I hope that all the member lake associations have an enjoyable Spring and Summer. Good luck with all your educational programs, research and remediation projects.



"Fire Away"

NYSFOLA 35th
Annual Conference
Tour of Fort
William Henry in
Lake George

Photo by Donald
Fisher, Little York
Lake Improvement
Society

(Continued from page 1)

the 12 lakes to reduce the sources of pollution that spark algal blooms. The state will provide nearly \$60 million in grant funding to implement the Action Plans, including new monitoring and treatment technologies.

The action plans describe the current conditions of the twelve waterbodies, summarize research conducted and data produced, identify potential causal factors contributing to algal blooms, and provide specific recommendations to minimize the frequency, intensity, and duration of HABs to protect public health and the environment.

Although the causes of HABs vary from lake to lake,

phosphorus pollution—from sources such as wastewater treatment plants, septic systems, and fertilizer runoff—is a major contributor. Other factors likely contributing to the uptick in HABs include higher temperatures, increased precipitation, and invasive species.

Priority actions identified in the plans range from wastewater treatment upgrades, sewer expansions, and septic system upgrades and replacements, to streambank erosion prevention, stormwater best management practices, agricultural nutrient reduction measures, and open space buffer preservation projects.

All plans can be found at <https://www.dec.ny.gov/chemical/113733.html>.

Priority Actions Identified in HAB Action Plans

With input from national and local experts, the Water Quality Rapid Response Teams for each Lake identified a suite of priority actions (see Section 13 of each Action Plan for complete lists) to address HABs.

Cayuga Lake	Build the capacity of Soil and Water Conservation Districts (SWCDs) in the Cayuga Lake watershed to implement Agricultural Environmental Management (AEM); implement livestock exclusion programs and manure management techniques; conduct a pilot program for new and emerging Best Management Practices (BMPs); and implement sediment control measures
	Implement runoff reduction BMPs, roadside ditch and culvert improvement projects; install stream stabilization on selected tributaries; and plant trees and shrubs on available municipal lands and willing landowner properties;
	Establish a septic system inspection program
	Implement comprehensive municipal stormwater programs throughout the watershed
	Acquire and conserve lands and wetlands within the watershed.
Chautauqua Lake	Build capacity of county agencies and local nonprofits in the watershed to implement Best Management Practice (BMP) work on croplands and non-agricultural lands, increase education/outreach, perform site inspections for municipalities, acquire conservation easements on sensitive sites and BMP-installed sites, and conduct upland water management projects on both public and private lands
	Implement the South and Central Chautauqua Lake Sewer District expansion project and roadside ditch program
	Complete a landscape assessment to identify nutrient sources and recommend BMPs to minimize nutrient export
	Purchase and deploy an additional sampling buoy and conduct additional tributary sub-watershed and in-lake monitoring to help determine the stresses that lead to HABs
	Complete studies on the application of nutrient inactivants and evaluate the potential efficacy of adding additional treatment to public water systems.
Conesus Lake	Implement runoff reduction Best Management Practices (BMPs) on croplands to reduce stormwater and nutrient runoff and
	Complete engineering design of a hypolimnetic aeration and oxygenation system, and complete a limnological study of nutrient inactivant application to address legacy phosphorus; and
	Complete a hydrodynamic model and engineering assessment to evaluate altering water circulation, and install water circulation units
Honeoye Lake	Complete engineering studies in preparation for nutrient inactivant and aeration destratification applications to address the
	Purchase back-up power generators for the 13 sewer life stations to prevent raw sanitary sewage overflow, and install infrastructure to connect additional private systems to municipal sewer systems
	Implement multiple stormwater Best Management Practices (BMPs) to reduce nutrient and sediment loading and stabilize riparian habitat

Lake Carmel	Construct a wastewater treatment plant (WWTP) and install infrastructure to connect 2,500 houses within the watershed to the WWTP
	Stabilize and reinforce the banks of the Middle Branch of the Croton River and Stump Pond Stream;
	Create riparian buffers along streams to inhibit or restrict nutrient-enriched stormwater runoff and eroded soil from
	Implement multiple stormwater Best Management Practices (BMPs) to reduce sediment loading into Lake Carmel. This would include the purchase of a street sweeping vacuum truck to prevent sediment and organic debris from entering storm drains, ditches, tributaries and Lake Carmel
Lake Champlain	Isle La Motte
	Implement a livestock exclusion program to minimize soil erosion and nutrient loading, and implement alternative manure management practices into animal feeding operations to reduce nutrient loadings
	Implement a cost-share program to provide financial and technical support
	Implement roadside ditch improvement projects.
	Port Henry
	Implement a stormwater management and reduction program within the Village of Port Henry and the Town of Moriah to reduce stormwater runoff and nutrient and sediment loading into Lake Champlain
Lake George	Upgrade the Village of Port Henry/Town of Moriah WWTP to include filtration of phosphorus
	Upgrade municipal wastewater collection and treatment systems
	Reduce inflow and infiltration of wastewater within municipal systems
	Implement an inspection and maintenance program for near-shore septic systems
	Extend sanitary sewer infrastructure and add service to existing commercial properties
Monhagen-Middletown Reservoir System	Implement a woodchip bioreactor demonstration project and evaluate the wastewater treatment efficiency
	Update land classification for the reservoir system watershed areas
	Complete a feasibility study and cost estimate to upgrade Hidden Valley Estates wastewater treatment plant (WWTP)
	Research sources of algal blooms and cyanotoxins, conduct thermal and dissolved oxygen profiles to evaluate stratification, and complete a feasibility study to install aeration facilities
	Purchase land and conservation easements, and enhance riparian buffers
Owasco Lake	Pursue engineering studies to evaluate the efficacy of additional treatment at public water systems
	Build the capacity of soil and water conservation districts (SWCDs) in the Owasco Lake watershed to further implement Agricultural Environmental Management (AEM); enhance outreach to row crop farms; support farmers to enhance manure and livestock management; conduct a pilot program for emerging Best Management Practices (BMPs); and implement sediment control measures
	Implement runoff reduction BMPs, roadside ditch and culvert improvement projects; stabilize selected tributaries; establish vegetated riparian buffers and plant trees and shrubs on available lands; and acquire and conserve lands and wetlands in the watershed
	Complete a feasibility study to upgrade municipal sewer infrastructure
Palmer Lake	Conduct a study of a possible extension and/or additional public water intake into a deeper water location
	Construct a wastewater treatment plant (WWTP) and install infrastructure required to connect 300 houses or a subset of residences
	Dredge bottom sediment to reduce re-sedimentation and introduction of legacy, sediment-bound phosphorus
Palmer Lake	Continue to improve stormwater management within the watershed

Putnam Lake	Construct a wastewater treatment plant and install infrastructure required to connect up to 1,200 homes
	Implement multiple stormwater best management practices (BMPs) to reduce sediment loading
	Evaluate the use of nutrient inactivants or alternatives to reduce the introduction of legacy phosphorus
Skaneateles Lake	Perform modeling of in-lake conditions and the contributing watershed to develop a nine element watershed plan
	Implement runoff reduction Best Management Practices (BMPs) on croplands and non-agricultural lands, and implement a manure injection technology program
	Continue to implement the program to inspect existing septic systems and provide public outreach about watershed management
	Implement roadside ditch projects, stabilize riparian habitat, acquire and conserve lands to protect existing buffers, and enhance wetlands
	Study the possible extension of and/or additional public water intake into deeper water regions

NYSFOLA Annual Conference Draws Record Crowd to Lake George

Dr. Stephen Souza Receives Lake Tear of the Clouds Award

Nearly 300 people flocked to the shores of Lake George last May to attend the 35th NYSFOLA Annual Conference. The Fort William Henry Hotel and Conference Center overlooking the lake provided a beautiful backdrop for the weekend.

The NYSFOLA Board of Directors awarded Dr. Stephen Souza, Founder, Princeton Hydro with its 'Lake Tear of the Clouds' Award. This award, named after the highest lake in the state, is NYSFOLA's highest honor. It is given to a person who has shown the highest dedication to New York's lakes and watersheds, assisted NYSFOLA in its mission, and produced exceptional performance in his or her field of endeavor.

In bestowing this award to Dr. Souza, NYSFOLA recognized his accomplishments and efforts in the management and restoration of lakes throughout the State of New York and his decades of support as a conference speaker, exhibitor and advisor to our organization.



Lake Tear of the Clouds Award - Photo courtesy of Princeton Hydro, LLC

During his acceptance speech, Dr. Souza said, "I am truly humbled and appreciative to have even been considered worthy of this award. In accepting the 'Lake Tear of Clouds' Award, I want to extend my deepest thanks to NYSFOLA, the NYSFOLA Board of Directors, Nancy Mueller and all of you here tonight. It is people like yourselves, who advocate for clean lakes, that have made my career so rewarding. While Dr. Souza is preparing for retirement, in the very near future, he is currently working with New York State Department of Environmental Conservation on the Harmful Algal Bloom Summit initiatives.

"We thank you for your longtime support of NYSFOLA and our member lake associations, Steve," said Nancy J. Mueller, Manager. "And, we congratulate Princeton Hydro on its 20th anniversary."

Annual Lake Association Newsletter Contest Yields Large Number of Entries

By Theresa Mayhew, FOLA Board Member and Newsletter Contest Coordinator

The winners of this year's NYSFOLA newsletter contest were announced during the membership meeting luncheon on Saturday, May 5. A total of 23 submissions were received – one of the largest number in recent history – with 17 entries in the large lake category alone. It took this year's team of judges nearly three hours to review each submission.

Newsletters were judged based on the following criteria: Overall appearance (easy to read & visually attractive); use of color in text; contains photographs or graphics (black & white or full color); publication information (name of editor, co-editor, issue # or date); President's message; committee reports; and articles/ or features by individual contributors (can include officers) in addition to the following elements -- masthead; mission statement; table of contents; list of officers; list of donors; and calendar of events.

The overall aim of the contest is to recognize newsletters that are informative, interesting and educational, something that members will peruse at the very least and

Large Lake Association Winners

1st

Lake Pleasant - Sacandaga Association

2nd

Chautauqua Watershed Conservancy

3rd

Canandaigua Lake Watershed Council

Medium Lake Association Winners

1st

Copake Lake Conservation Society

2nd

Glenwood Lake Association

1st

Small Lake Association Winner

Kasoag Lake Conservation Association



John Jablonski Executive Director of the Chautauqua Watershed Conservancy with NYSFOLA President Don Cook.

read in its entirety at best. If it contains pertinent news about the lake and its residents, it most likely will end up being held onto until the next issue is published. Advertising to offset the cost of newsletter production and

mailing will not be a selection factor however it should not be obtrusive or detract from the publication's readability. Congratulations to all the lakes that entered and, in particular, their editors and those individuals that contributed articles and photographs to each issue.

Special thanks to contest judges Karrie Allen and Karen Mort for their tenacious belief in the power of the written word! We hope to have even more entries next year!

Silent Auction and Framed Print Raffle Successful Undertakings

By Theresa Mayhew, NYSFOLA Board Member

This year's Silent Auction netted \$1106 for NYSFOLA. A big thank you to all the donors and supporters that made it such a success. A special note of thanks to Jan Douglass and Walt Dutcher who helped process the financial transactions. Sixteen individuals and/or groups donated items that ranged from gardening supplies to wine to folding chairs to heron photographic prints to Adirondack craft art to jewelry to cases of beer to flowering plants to wine! Not to mention a secchi disk, summer buckets of fun, dashboard camera, clay baker pot, LaMotte Water Sampler, turtle wind chime, ultra-drain board and fish socks.

This was quite the variety with an eclectic mix of practical, whimsy and consumable! I All told there were 60 items available for folks to bid on.

In addition, a pastoral waterfront framed print was also raffled off raising a total of \$265 to support NYSFOLA operations.

It's not too early to start thinking about next year's silent auction. Take advantage of summer clearance sales, thrift store browsing and even garage or yard sale offerings. You never know what you might stumble upon and what might be the next big hit at next year's NYSFOLA Silent Auction fundraiser.

If you have an item you'd like to donate to NYSFOLA as part of next year's raffle, let NYSFOLA Manager Nancy Mueller or Silent Auction Coordinator Theresa Mayhew know. Again, many thanks to all that participated in this year's fundraising events.

NYSFOLA Remembers Our Departed Friends

It is with great sadness that NYSFOLA announces the passing of two former NYSFOLA Presidents, Helen Sick from Loon Lake in Steuben County and George C. Kelley from the Tioughnioga Lake Association (aka DeRuyter Reservoir) in Madison County.

Helen was appointed to the NYSFOLA Board of Directors in May 2002. She was President from 2009-2011. She wasn't in charge of CSLAP while on the Board, but she was certainly a strong advocate of the program and served as Loon Lake's primary contact for the program from 2004-2017.

Helen also served as NYSFOLA's historian, compiling scrapbooks of our conference programs and newsletters (1983-2015) as well as a photo album from conferences and Board meetings.

George Kelley was first elected to the board in May of 1996. From 1999-2001, he served as Chairman of the Watershed Management Planning Committee. With his leadership, NYSFOLA was able to prepare *A Primer for Lake and Watershed Management Planning* --the document that served as one of the original models for lake management planning in New York State.

He was promptly elected President of NYSFOLA and served

in that capacity from 2001-2003. He served on the "Diet for a Small Lake Committee" and took over the chairmanship from 2006-2009. Committee meetings were frequently held at his camp on the shores of DeRuyter Lake where members were served a wonderful lunch. This made committee members reconsider "Diet..." as the publication title!

In May of 2013, George became President once again as we prepared to host the North American Lake Management Society International Symposium in Saratoga Springs. George was already very familiar with NALMS having served as our representative, at his own expense, at several symposiums including a 2002 trip to Anchorage, Alaska.

Shortly after George's passing, he was joined on a heavenly boat ride by his longtime companion, Nancy Craft. Nancy was a fixture at the annual conference registration desk (it took three people to replace her this year) and without her, the final draft of *Diet for a Small Lake* would never have made it to press. Her countless volunteer hours spent editing the publication were truly selfless.



Helen Sick (right) with Don Cook



George Kelley



Nancy Craft

Sediment Management Using Enzymes and Bacteria Products - Do They Work?

Prepared by Stephen J. Souza, Ph.D. Founder Princeton Hydro, LLC

The deposition of sediment, leaf litter and organic matter in lakes and ponds is an ongoing, natural process. Unfortunately, over time this does result in measurable impacts, that include loss of water depth, introduction of nutrients and creation of areas prone to colonization by invasive aquatic plants. Sediment deposition leads to one of the most common requests lake consultants receive from lake communities... “Our lake is filling in! We are losing our lake! Please help us get the muck out!”.



Dredging, as we all know is the physical process of removing accumulated sediments from a lake. It is the most effective way of reclaiming water depth and reversing the impacts caused by sedimentation. However, even though the actual removal of sediment, leaf litter and organic material is fairly straightforward, the entire process is complicated. Simply put, dredging is a tedious and highly regulated activity. It can also be very expensive. As a result, a lot of lake communities have been attracted to address lake infilling through the use of various enzymes, bacterial inoculants and similar products that are touted as having the ability to cost-effectively “digest” and “get rid of” the organic sediments and muck present on a lake bottom.

Without doubt, aerobic, bacteria-driven decomposition can successfully breakdown and decompose organic material. For proof, visit any secondary wastewater treatment plant. You’ll see during your visit large, highly aerated tanks that facilitate the aerobic bacterial decomposition of organic material.

But lake sediments are not the same as the organic material in sewage treatment plants. The vast majority of lake sediments consist of inorganic silts, clays and sands along with some organic material. This is an important fact to note. Inorganic sediments will not be decomposed by aerobic bacteria, regardless of how much bacteria or enzymes are added or the extent to which the water column is aerated. Typically, the organic content of lake sediment is in the 20% - 30% range. OK, so that means that it could be possible to reduce the accumulated sediment at the bottom of a lake by 20-30% by using these products. But it’s not as simple as that. The occurrence and diagenesis (various physical, chemical and biological processes) of organic material in lakes is affected by a variety of factors. Even with your attempts to speed up mother nature by “spiking” the system with these products, overall these processes are not going to be substantially accelerated. The breakdown of organic material is a fundamental means of energy transfer in any waterbody. Along with photosynthesis, it’s the foundation of the food web of every lake and pond.

Granted, some sediment build up is linked to autochthonous (internal) sources that include decaying algae, aquatic macrophytes, fish and all the other organisms that die and sink to the bottom. But most often, the most egregious cause of sediment buildup and infilling affecting lakes is the result of the allochthonous (external) influx of sediment from the surrounding watershed. As previously noted, the vast majority of this sediment is inorganic; sands, silts and clays. Also, contributing to the buildup of “muck” on a lake bottom is leaf litter, twigs and other woody debris. This type of material has a very high cellulose content. As such, the biological decomposition and decay of this material takes place over a very long period of time. The addition of more bacteria or special enzymes is not going to significantly alter the rate at which this material decomposes.

The bottom line is that bacteria and enzymes can only digest organic material. Although organic material constitutes a portion of the muck on the bottom of a lake, the majority of the mucky sediments is often silts and clays, which

although malleable are not organic. This inorganic portion of the sediments cannot be biologically decomposed. Additionally, leaf litter and other high cellulose containing material breakdown very slowly, even under highly aerobic conditions and in the presence of large amounts of bacteria.

But if the path that your community wishes to take involves the addition of special bacteria and enzymes, either with or without aeration, my advice is to approach the project as a controlled experiment and take the following steps in order to document the effectiveness (or lack thereof) of your efforts:

1. Before you begin, identify the sources of sediment responsible for the infilling of your lake. You need to understand where all of this sediment is originating and take the proper steps to control sediment loading. This may mean improved stormwater management, stream bank restoration, and the stabilization of eroding shorelines. It may also involve educating lake residents. For example, they need to know not to blow leaves and grass clipping into the lake or storm drains, stop mowing to the edge of the water and create aquascaped buffers, or other basic "house keeping" steps that could be taken to control and reduce organic and inorganic sediment influx to the lake.

2. Establish and accurately delineate two adequately sized test plots (at least 100' x 100') for treatment using the

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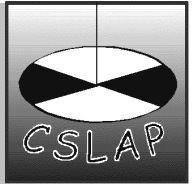
3. From both test plots, collect sediment samples. It is best to collect these samples as discrete cores, that is vertical samples of the sediment that enable one to examine sediment layering and physically obvious changes in the deposition of material. From each test plot collect at least 5-8 samples and record the conditions and variability of each core. Upon the retrieval of the cores, examine them closely for any evidence of stratigraphy (layering) of the

deposited sediments (for examples alternating layers of sand, silt, leaf material; dark colored versus light colored material, etc.). Also note any odor. For example, a strong hydrogen sulfide (rotten egg) odor is indicative of a reduced (anaerobic) state.

4. The contents of each core can then be homogenized to create one composite sample per test plot. The composite sample for each test plot should be sent to a analytical laboratory for the analysis of: Grain size (Sand, silt and clay) composition, Percent organic content, and Percent water
5. Conduct a detailed bathymetry of both test plots. This means accurately measuring existing water depths and accurately measuring the thickness of the sediment deposits present within each test plot. It would also be advantageous to compute the volume of sediment in each test plot.
6. Apply the recommended quantity of the pellets to one of the two test plots following the manufacturer's specifications. Leave the other test plot "untreated"...this will be your control against which your pre- and post-sediment data can be compared.
7. After a specified amount of "treatment time"...return and replicate steps 3, 4 and 5.
8. Quantify the measured reduction in sediment thickness, sediment volume and the physical composition of the sediments.
9. Determine how much water depths increased in the treated versus the control plot.
10. Present your data and information in a report that can be shared with the community.

If the data support the finding that a significant increase in water depth and a measurable decrease in the thickness and volume of sediment was achieved through the use of the bacteria or enzyme product, you can consider using the product on a larger scale. If the data is non-conclusive or shows no substantial differences between the control and test plot, consider the alternative, which means a full-scale dredging project, a localized, focused dredging project, or perhaps the hydroraking of impacted areas to remove accumulated organic material, but not the actual removal of inorganic sediments.

CSLAPpenings



The 2018 edition of the Citizens Statewide Lake Assessment Program (CSLAP) is underway. It's the biggest program we have ever attempted to run, and admittedly, we might not have been fully prepared for it. With more than 170 sites, over 400 volunteers, and more parameters than ever, we have had to do some scrambling at NYSFOLA, Upstate Freshwater Institute (UFI), NYS DEC, and SUNY ESF to get everyone up and running and to adapt to some new changes.

The changes: First and foremost we want to thank Scott Kishbaugh for his 30+ years of service to the program. He is not retiring completely but is handing off duties to Stephanie June who joined the DEC Division of Water, Central Office as a Research Scientist in April and is already a great addition to the CSLAP team. She will be helping Scott on the DEC side of the program, and will be taking on more responsibilities as the summer progresses. Scott Kishbaugh is not far away, and is mentoring Stephanie as she takes on her new role. She is inheriting a program that went from 25 lakes to 150+ lakes, more data, and many more volunteers. Many of you sent in wonderful tributes to thank Scott for his years at the helm of CSLAP, and we presented him with a scrapbook of all of them at the annual conference.

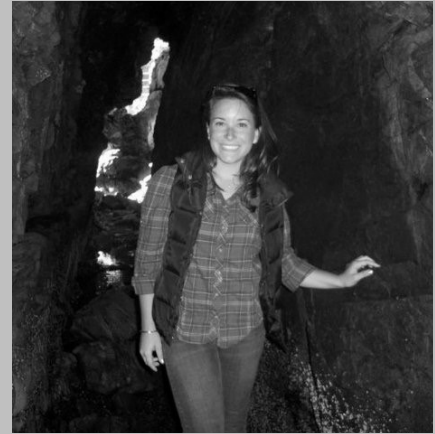


"Thanks Scott" - by Mark Wilson, Shore Owners' Association of Lake Placid

This year, over 100 new CSLAP volunteers were trained at several locations. That is also a new record, and we thank everyone who assisted with training and those who participated. The Lake George Association graciously provided their Floating Classroom, and the

(Continued on page 11)

Get to Know Stephanie June! DEC's New CSLAP Program Coordinator



- Originally from Connecticut but has lived in New York for 22 years. She grew up playing in tidal pools on the Long Island Sound and swimming in lakes in the Adirondacks, and has a love for both marine and freshwater environments.
- Holds a B.S. in Biology with a concentration in Marine Science from Northeastern University and an M.P.H. in Environmental Health Science from the University at Albany. Her undergraduate work specialized on invertebrate trophic interactions and the impact of climate change on the rocky intertidal of the New England Coast while her graduate work focused on emerging public health impacts, particularly harmful algal blooms, on drinking water sources and recreation in surface waters.
- Previously worked as a Senior Sanitarian for the NYS Department of Health and as a Quality Control Analyst with Regeneron Pharmaceuticals.
- Is an avid downhill skier, a certified open water SCUBA diver, loves to read and travel, and has two Siamese cats named Tobias and George Michael.
- Along with her responsibilities with CSLAP, she will also work on the Governor's HAB Initiative projects and the Lake Classification and Inventory (LCI) Program. She is very excited to be a part of CSLAP and looks forward to working with everyone!

Finger Lakes Institute at Hobart and William Smith Colleges made their 65 foot research vessel The William Scandling available to us on Seneca Lake. Thank you also to Don and Robyn Fisher who hosted a training and picnic at their home on Little York Lake for several Central NY lake associations, and to NYSFOLA Board member Janet Andersen who has conducted training on some lakes in the Lower Hudson region. The NYS DEC Finger Lakes HUB staff has become a huge asset to the program, and we thank Scott Cook, Aimee Clinkhammer, Tony Prestigiaco, and Lewis McCaffrey for their time and effort to help get the program up and running on the Finger Lakes and beyond.

We have also hired two interns from the SUNY College of Environmental Science and Forestry in Syracuse to serve as field technicians this year. In the early days of CSLAP, field technicians visited lakes to serve as “ambassadors” between NYSFOLA, DEC and the lake associations and to troubleshoot protocol and/or equipment issues. This got lost in the shuffle along the way, and we welcome Joelee Tooley and Selene Munoz to the program this summer. Joelee will be working with lakes in the St. Lawrence/Oneida/Western Adirondack region this summer while Selene spends time in Central NY. We hope to rotate interns around the state over the next few years. Learn more about them on page 12.

Of course, you noticed the extra bottles this year. One of the outcomes of Governor Cuomo’s HABs Summits, was the recommendation from national experts that we add dissolved nutrients to the CSLAP analyte list. As such, every lake in the program is now collecting samples for Total Dissolved Nitrogen and Total Dissolved Phosphorus.



With the help of the DEC Finger Lakes HUB staff, the Finger Lakes are experimenting with a method to collect Soluble Reactive Phosphorus. For now, it’s a trial run in the Finger Lakes, but...stay tuned.



Photo courtesy of the Cortland-Onondaga Federation of Kettle Lakes Association

In the last edition of “Waterworks”, you read about the state’s move toward requiring data from ELAP certified laboratories. Our friends and colleagues at Upstate Freshwater Institute (UFI) have purchased equipment and recently received certification to run samples for algal toxins using the method preferred by the NYS Department of Health (ELISA method). Dr. Greg Boyer at SUNY ESF, among other national researchers, prefers to use the LC-MS/MS methodology which is not a NYSDOH ELAP certified method. So for 2018, we are running samples at both labs for comparison. Note that the NYS DEC HAB Notification Listing <https://www.dec.ny.gov/chemical/83310.html> that comes out each Friday afternoon is not based on the presence of toxins but rather on the amount of blue green algae (cyanobacteria) in a sample using fluoroprobe data from the laboratories. Visual analysis of the samples to determine the species of algae present is also being conducted at both UFI and ESF.

So, we’re growing and changing, but we also want to remember our roots and to remember that this a program for lake associations. It’s sometimes easy to forget that NYSFOLA was founded for the sole purpose of creating a volunteer monitoring program for New York lakes. The NYS Environmental Conservation Law states that the program is for lake associations.

NYS Environmental Conservation Law ENV §17-0305

The purpose of this program is to establish a network of volunteers belonging to lake associations throughout the state to monitor the condition of their respective lakes under the guidance and direction of the department...

Please let us know what we can do to better serve our customers. We thank each and every one of you who head out to the lake 8 times each summer. Some of you have been doing this each and every year for decades.

Meet Our CSLAP Field Technicians Selene Muñoz and Joelee Tooley

In the early days of CSLAP, field technicians went out to visit the volunteers, collect extra data, check equipment, and ensure that sampling was being conducted in accordance with the Sampling Protocol. After many years of hoping to resurrect this important part of the program, we are happy to announce that a partnership between the New York State Department of Environmental Conservation and the SUNY College of Environmental Science & Forestry (ESF) allowed us to bring two field techs on board this summer.

Special thanks go to the United States Environmental Protection Agency Region 2 for the loan of a multi-meter YSI probe that has enabled us to collect additional data on CSLAP lakes.

Selene Muñoz was born and raised in the Bronx. She attended SUNY Plattsburgh before transferring to ESF



where she recently graduated with a B.S. in Environmental Science with a focus on Watershed Science. She is interested in the challenges involved in environmental issues and the need for diversity in the profession. She has come to understand and be amazed by the amount of time and effort our CSLAP volunteers contribute to improving the health of their lakes.

Joelee Tooley is from Watertown, NY. She has an Associate's degree in Math and Science from Jefferson Community College and will be entering her senior year to complete a B.S. in Wildlife Science. Her limnology interests lie in the ecology of lakes, with an emphasis on aquatic invasive species. This summer, she documented the previously unreported presence of curly-leaf pondweed in Pleasant Lake in Oswego County.

Dam Infrastructure: Understanding and Managing the Risks

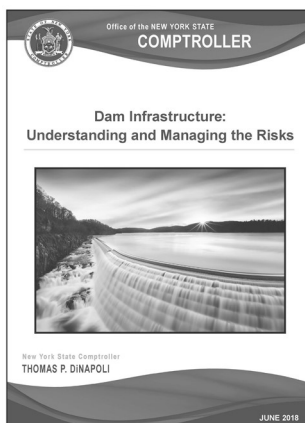
Municipalities across New York are facing an estimated \$360 million price tag to fix locally-owned dams that are considered a high- or intermediate-hazard to public safety, according to a report by New York State Comptroller Thomas P. DiNapoli.

The report showed that New York has more than 1,000 intermediate- and high-hazard dams, nearly 400 of which are owned or co-owned by local governments. There are a total of 5,352 functioning dams in the state, with 861 of those owned or co-owned by local governments.

In the report, DiNapoli recommended that local officials:

- Ensure emergency action plans and annual certifications are adequate and up to date, and take prompt action to address deficiencies identified by inspections and engineering assessments.
- Include dams in capital asset planning and establish

long-term financial forecasts for dam maintenance and, if necessary, rehabilitation.



- Raise awareness about dams that could affect residents. In addition to their own dams, local officials also need to know about other intermediate- and high-hazard dams that could affect their residents and businesses.

To read the report "Dam Infrastructure: Understanding and Managing the Risks," go

to: <http://www.osc.state.ny.us/localgov/pubs/research/dam-infrastructure-2018.pdf>. To find local data on dams across New York, go to: <http://www1.osc.state.ny.us/localgov/dams/dams.html>.

24TH ANNUAL WESTERN REGIONAL MEETING
NEW YORK STATE FEDERATION OF LAKE ASSOCIATIONS, INC

TOPICS

1. Honeoye Lake Inlet Restoration Project and the Loon Lake Wetlands Restoration Project
2. Honeoye Lake Climate Study- by Cornell University and Finger Lakes Community College
3. Harmful Algal Bloom Initiatives in Western New York – Updates on Honeoye, Conesus and Chautauqua Lakes

OCTOBER 20, 2018

10 A.M. TO 3 P.M.

SILVER LAKE GOLF CLUBHOUSE

3820 CLUB ROAD, PERRY, NEW YORK 14530

LUNCH MENU

Roast beef and turkey cold cuts with rolls, potato and chef salads, onion and vegetable barley soups , fruit for dessert and coffee. Other beverages available for purchase

** A fee of \$15.00 and registration is due no later than **October 11, 2018**. Send the Registration form and check to **Mark Emmerson, 3758 Shearman Road, Perry, New York, 14530**. Checks should be made out to **-NYSFOLA or New York State Federation of Lake Associations.** Registration is also available on the NYSFOLA website using Paypal. Questions? Call Don Cook at 585-367-9293.

NAME OF PARTICIPANTS - _____

Total Number _____ Total Amount Enclosed _____

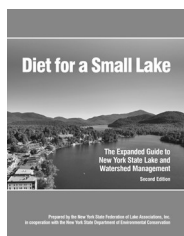
Mailing Address - _____

City/Town _____ State _____ ZIP Code _____

Telephone Number _____ Email Address _____

DIETARY NEEDS _____

Available from NYSFOLA

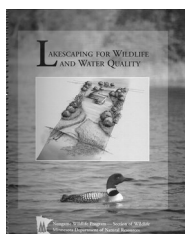


Diet for a Small Lake: The Expanded Guide to New York State Lake & Watershed Management

A “must have” publication for anyone who cares about New York State lakes. This publication offers an introduction to lake ecology, descriptions of lake restoration and watershed management techniques and relevant New York State laws and regulations plus guidance for preparing a watershed management plan.

Get them while they last! \$10.00

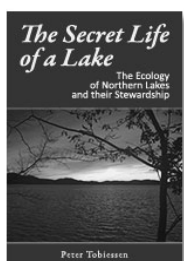
Hardcover: \$15.00



Lakescaping for Wildlife and Water Quality

This book is a great resource for those who want to be lake friendly property owners. The book includes chapters about lake ecosystems, designing lakeshore landscaping and selecting the right plants. The book has a bit of an upper-midwestern slant, but it is very applicable to New York lakes.

Spiral Bound Paperback: \$20.00



The Secret Life of a Lake: The Ecology of Northern Lakes and their Stewardship

We are very pleased to offer this new publication written by NYSFOLA member and CSLAP volunteer Peter To-biessen from the Lake Pleasant-Sacandaga Association. Peter has taught aquatic biology for many years at

Union College. By letting readers in on a lake’s “secret life,” the author hopes to give them a deeper understanding of these complex and dynamic ecosystems, and perhaps even motivate some to become more active in a lake’s preservation. **Paperback: \$19.00**



Through the Looking Glass: A Field Guide to Aquatic Plants - NEW EDITION!!

A Wisconsin Lake Partnership publication containing wonderful line drawings and descriptions of the most common freshwater plants. **Paperback: \$30.00**

Shipping and Handling: Books will ship via U.S. Postal Service Media Rate.

1 copy \$5.50
2 copies \$7.50
3 copies \$10.50
4 copies \$11.50



Please make check payable to NYSFOLA and mail to:

**New York State Federation of Lake Associations, Inc.
P.O. Box 84
LaFayette, NY 13084**

TITLE	PRICE	QUANTITY	SUBTOTAL
DIET FOR A SMALL LAKE (pap)	\$10.00		
DIET FOR A SMALL LAKE - (hdc)	\$15.00		
LAKESCAPING ...	\$20.00		
THROUGH THE LOOKING GLASS	\$30.00		
THE SECRET LIFE OF A LAKE	\$19.00		
Shipping & Handling	see	chart	
TOTAL			

2018 Membership Form

New York State Federation of Lake Associations, Inc.

Lake, Watershed and other Associations:

Small Association (10-74 members)	\$ 50.00
Medium Association (75-149 members)	\$ 100.00
Large Association (150 or more members)	\$175.00
Foundation (Affiliated with NYSFOLA member lake association in good standing)	\$100.00

Individual Memberships:

Individual Membership (not a member of a NYSFOLA member lake association)	\$ 25.00
Individual member of a NYSFOLA member lake association in good standing	\$ 15.00

Corporate Membership: \$250.00

Student Membership (with copy of valid student ID) \$15.00

Name of Lake Association or Individual _____

Location (County) _____ **Sponsor (if any)** _____

Contact Name _____

Address _____

City, State, Zip _____

Telephone _____

E-Mail _____

Web site _____

Amount Remitted _____ Check # _____ Date _____



Send Payment to:

New York State Federation of Lake Associations, Inc. (NYSFOLA) P.O. Box 84 LaFayette, NY 13084

IS YOUR NEIGHBORING LAKE ASSOCIATION A MEMBER OF NYSFOLA? IF NOT, REACH OUT TO THEM, AND INVITE THEM TO JOIN US! (OR SEND US THEIR CONTACT INFORMATION)

WATERWORKS
New York State Federation of Lake
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