the Beacon

SPRING / SUMMER 2024 LAKE SUNAPEE PROTECTIVE ASSOCIATION

The New Water Quality Buoy has Been Deployed!

LSPA's first water quality buoy was launched in 2007 by LSPA staff and volunteers. Since then, it has become an icon on Lake Sunapee, collecting and transmitting data every 10 minutes from above and below the lake surface. It is the go-to source of real-time data about Lake Sunapee. Its wind and temperature information inform sailors, swimmers, and weather enthusiasts alike. And the buoy's measurements of lake water quality are used by scientists and educators locally and from around the world as part of Global Lake Ecological Observatory Network (GLEON) research projects. But, after almost 20 years of intrepid service, the original buoy was showing its age.

Long-time LSPA volunteer, John Merriman, working on the orginal Water Quality Buoy in Sunapee Harbor in 2013.

Adrienne Breef-Pilz, Sensor Technician from the Carey Lab at Virginia Tech, Katie Hoffman, LSPA-VT Calhoun Fellow, Kak Weathers, LSPA Volunteer Research Director, and Geoff Lizotte, LSPA Watershed Director connecting the buoy sensors. Photo by Midge Eliassen.

Over the past year, a committee of researchers from LSPA's Scientific Advisory Committee (SAC) scoped the needs for a buoy that would support next generation lake research, education, and monitoring. A very generous donation made it possible to purchase the upgraded buoy and new state-of-the-art instrumentation. The new equipment, delivered to LSPA in the spring, required months of work by LSPA staff, volunteers, researchers, and technical staff from Virginia Tech to assemble, connect and test. The new buoy has now been deployed at Loon Island, where it will stay, transmitting data every few minutes from now until late fall when it will be moved into Sunapee Harbor to avoid ice damage in winter.

The new LSPA water quality buoy will continue to collect weather data and measure water temperature, dissolved oxygen, conductivity, and chlorophyll. These data are displayed live on the LSPA website and continue to add to our long-term data set which is made available to researchers, educators and water quality managers. New additions to the buoy include a net radiometer (to measure how much light is reaching the water and how much is reflected back) and a hydrophone (to listen to waves under water). Not only do these measurements support research on Lake Sunapee and lake science globally, they also complement the 30+ year data set of volunteer water quality monitoring in Lake Sunapee.

LAKE SUNAPEE PROTECTIVE ASSOCIATION
LSPA

LSPA's Mission

LSPA, founded in 1898, is dedicated to preserving and enhancing the environmental integrity of the Lake Sunapee region, especially its lakes and watersheds, through education, research, and collaborative action.

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Visit our website for more information about upcoming events and volunteer opportunities.

From the Helm


Betsy Lyons, President

Summer is in full swing. Flowers and new growth cover the landscape. Bird song greets the sunrise. Loons and great blue herons are back fishing the waters. People too are active throughout the Lake Sunapee Watershed. At the Center for Lake Studies, LSPA is actively working to address new challenges. Challenges? An invasive plant was spotted by a Lake Host on the trailer of a boat departing Lake Sunapee. A quick check confirmed the presence of curly-leaf pondweed growing near the Georges Mills boat ramp. LSPA responded quickly with divers being brought in to carefully remove the plants which can easily spread.

Last year, an infestation of curly-leaf pondweed was discovered in Baptist Pond where it has spread to the point of needing chemical treatment. Hopefully, early detection and increased vigilance on the part of our volunteers on many of the lakes in the watershed will allow us to eradicate this invasive in Lake Sunapee and prevent further spread.

If ever you wondered why Lake Hosts inspect departing boats, now you know the reason! This challenge also underscores the importance of having volunteers look at what is growing in all the waterbodies in the watershed. Please consider becoming an Invasive Watch volunteer.

Another challenge concerns the listing lighthouse in Herrick Cove. The State of NH owns the lighthouses but does not maintain them. LSPA took on the task of keeping the lighthouses upright and flashing in the 1980's. This is done with restricted funds raised specifically for the lighthouses. LSPA's core mission is water quality, not lighthouse maintenance. All membership funds and other donations are used to support LSPA's mission. It is now time to replace the wooden cribs supporting both the Herrick Cove and Burkehaven lighthouses. We are starting a major appeal to raise funds for this work and for the ongoing costs of keeping the lighthouses lit. Work will begin on the lighthouses this summer and will be completed in 2025.

Climate change, with warmer temperatures and more frequent severe storms, will be a major challenge for years to come. You can help keep our waters blue by keeping waterfront areas full of native plants and trees instead of lawns and patios. Please be Watershed Wise! Individual efforts are critical to control nutrients flowing into the water and feeding cyanobacteria blooms.

As I close my tenure as Board President, I would like to thank the amazing staff for their knowledge and commitment, my fellow board members for their wisdom and hard work, LSPA's wonderful volunteer force, and all of you for your support of this incredible organization that is a leader, not just locally but globally.

Betsy

A Publication of **Lake Sunapee Protective Association** Founded 1898
All articles prepared by LSPA staff unless noted.

Early Detection and Quick Response are Key in Our Fight Against Aquatic Invasive Species

Curly-leaf pondweed

On Memorial Day, one of our Lake Hosts removed a piece of curly-leaf pondweed from the trailer of a departing boat leaving Lake Sunapee at the Georges Mills ramp. Later that week, LSPA staff member Susie Burbidge and Dave Beardsley, Chair of LSPA's Aquatic Invasive Species (AIS) Committee, paddled around the Georges Mills boat ramp to look for signs of this invasive plant. Approximately ten plants were discovered that day ranging in size from a foot or two off the bottom to several feet tall. We quickly alerted Amy Smagula at NHDES who recommended a trained dive team that LSPA hired to hand-pull the plants on June 5. They extracted about 15 plants total and feel confident they got it all. LSPA staff and Invasive Watch volunteers will continue to monitor the lake for any signs of curly-leaf pondweed or other aquatic invasive species. This successful response relied on many important collaborations. LSPA partners with NH LAKES to bring the Lake Host program to Lake Sunapee. This statewide program is crucial in reducing the spread of aquatic invasives. The Town of Sunapee and the Sunapee Police Department also provided important assistance by closing the boat ramp to allow the divers to work safely.

Curly-leaf pondweed in Baptist Pond. Photo by Amy Smagula, NHDES.

Diver getting bag ready to collect the invasive species, curly-leaf pondweed.

We do not have any reason to believe that this infestation is widespread in Lake Sunapee. We will be surveying and keeping a close eye out, especially near the boat launches. It's hard to know with certainty how the curly-leaf pondweed entered Lake Sunapee in the first place, but we believe it probably came in on a boat because the plants were found right at the end of the ramp.

Lake Hosts

Sunapee's Lake Hosts kicked off the 2024 season on May 17 and will cover all five ramps on the lake into September. They are hired and managed by LSPA staff and are paid with funds from several different sources including donations from LSPA members, funds contributed by the three waterfront towns (Sunapee, Newbury and New London) and a grant from NH LAKES.

Invasive Watch Volunteers

On May 10, Susie Burbidge & Dave Beardsley led a group paddle on Otter Pond to look for early signs of curly-leaf pondweed.

The group paddled up to the inlet, as that would be the most likely place for it to establish itself if it traveled downstream from Baptist Pond where curly-leaf pondweed was discovered last July.

The inside of the diver's bag after extracting curly-leaf pondweed in Georges Mills.

The group did not see any evidence of curly-leaf pondweed that day, but volunteer weed watchers on Otter Pond will continue to keep a close watch. Susie and Dave also led a group paddle on Mountainview Lake which is part of our quest to paddle with volunteers on a different waterbody in the Lake Sunapee Watershed each year.

We are all in this fight against invasive species together. Always remember to "Clean, Drain & Dry" your boat, trailer, equipment and gear between waterbodies. Please don't hesitate to reach out if you see anything concerning and you want us to take a look. Learn more on the LSPA website.

We can never have too many eyes on the water, so if you are interested in joining over 50 other Invasive Watch volunteers, please send an email to Susie at susieb@lakesunapee.org.

Calhoun Fellows

LSPA and the Calhoun family are excited to introduce you to this year's LSPA-VT Calhoun Fellows: Katie Hoffman and Sean Kenny! The LSPA-VT Calhoun Fellowship supports early career researchers from Virginia Tech to conduct collaborative research on Lake Sunapee and its watershed. This program advances the long-term resilience of Lake Sunapee and its watershed while also cultivating the next generation of environmental leaders in partnership with the Lake Sunapee Protective Association. This fellowship builds on the Calhouns' long-term philanthropy to Virginia Tech (Dave's alma mater) and LSPA.

Katie Hoffman is a Ph.D. Student in Biological Sciences and Sean Kenny is an undergraduate in the Environmental Science major at Virginia Tech. Part of Katie's Ph.D. research is focused on developing and visualizing Lake Sunapee forecasts. She has been involved with buoy deployment and maintenance over the past year and presented at the LSPA-VT workshop in May 2023. Sean is new to Lake Sunapee research, but he is quickly learning all he can about the lake. Katie and Sean will be in Sunapee until late July 2024. You may see them around the lake collecting chlorophyll and phytoplankton samples or participating in LSPA events and outreach.

Katie and Sean conducting field work.

The Lake was Bustling with Loon Activity This Spring

In mid-May, trail cams were installed on two of our loon rafts by Ashley Keenan, Field Program Coordinator with the Loon Preservation Committee. These cameras will take a picture every 30 minutes or when motion activated. One pair began nesting around May 25 and a photo confirmed there was at least one egg in the nest. We were also able to confirm that the same female is back in this territory by resighting the bands on her legs. She was banded on Lake Sunapee in 2019, so given the fact that loons in New Hampshire don't typically start breeding until they are 6 or 7, she is most likely at least 11 years old or older (the oldest known loon in NH is in her upper 30's)!

Loon raft with trail cam.

Loon nesting on a raft near The Fells. Photo by Gene Venable.

Both male and female loons take turns incubating the egg(s) for approximately 28 days. A second pair of loons started nesting in the southern end of the lake at the very beginning of June. During our Loon Cruise on June 14, we confirmed that one member of this pair is banded. We only saw three out of the four bands, so the loon's identity is still a bit of a mystery, but we will try to confirm the fourth band this summer. A third pair of loons has been on and off a nesting raft but as of early June they had not put down any eggs.

If you come across a loon on a nest or a loon with chicks on the water, please make sure to stay at least 150 feet or more away from them. If a loon starts to vocalize or shows other signs of distress, please give it even more space. It is a lot of work to care for themselves, tend to their eggs and chick(s) and defend their territory—they don't need the added stress caused by humans who want a closer look at these magnificent birds!

The newest loon chick on Lake Sunapee hatched in the northern end of the lake. Photo by Midge Eliassen.

Water Quality Improvement Projects in Progress

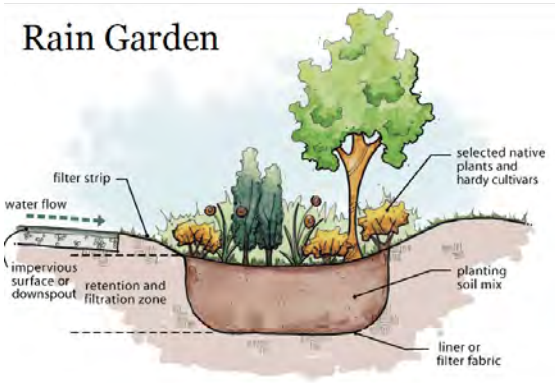
Kidder Brook Streambank Stabilization Project

LSPA Watershed Director Geoff Lizotte has been working with Twin Lake Villa (TLV) and engineer consultant, Fuss & O'Neill to complete a conceptual design that addresses streambank erosion along Kidder Brook. The design includes the restoration of a floodplain area, the use of angular rock along the base of the streambank where erosion is occurring and the planting of trees and shrubs to stabilize soils.

Next steps include meeting with the NH Department of Environmental Services (NHDES) Wetlands Bureau for their review of the design and preparing a wetland permit that is needed before work can begin. Project implementation is tentatively planned for September 2024. This project is partially funded through a NHDES Watershed Assistance Grant and via cash and in-kind match from TLV and LSPA.

Example of Kidder Brook streambank erosion

Volunteers planting the Rain Garden at Bucklin Beach.



Rain gardens capture and filter stormwater runoff. Rain garden graphic courtesy of NatureWorksPark.

The Rain Garden at Bucklin Beach a few weeks after the initial plantings.

These are some of the many volunteers who helped to create the rain garden.

Bucklin Beach Stormwater Improvement Project

LSPA has partnered with the Little Lake Sunapee Protective Association (LLSPA) and the Town of New London to implement several stormwater best management practices (BMPs) at Bucklin Beach. In early June, LSPA, LLSPA members and Town volunteers constructed a rain garden near the beach entrance that is designed to intercept stormwater debris being washed onto the beach from Little Lake Sunapee Road. This collaboration will improve water quality at the beach. "This project is a great example of how town governments, lake associations and communities can work together to make a difference in protecting one of the region's most precious and fragile natural resources - and do so quickly and efficiently," said Mike Morgan, member of LLSPA and volunteer coordinator for this effort. This fall, several other stormwater BMPs will be implemented with assistance from the New London Highway Department.

Check out the new rain garden project at Bucklin Beach.

Hastings Landing Road Erosion Control Project

LSPA worked with several landowners to address erosion of a shared driveway that is accessed from Hastings Landing Road in New London. Sediment from the driveway was being washed downstream in storm events eventually reaching Lake Sunapee. This project was completed in late May 2024 and involved paving a short section of the driveway and replacing some aging stormwater infrastructure to prevent further erosion from occurring. This site was identified in the current Lake Sunapee Watershed Management Plan as needing stormwater improvements.

Before: Prior stormwater infastructure implementation, sediment would wash downstream.

After: Paving the driveway prevents any further erosion to take place.

LSPA Driveway Entrance Landscaping Project

This spring, the entrance to LSPA's Center for Lake Studies was upgraded to reflect the best management practices for stormwater runoff established in LSPA's Watershed Management Plan. United Construction installed a stone-lined swale and infiltration trench along the edge of the Main Street driveway to slow down and infiltrate stormwater runoff. This work will prevent any further erosion from the intense rainfalls that have been occuring more frequently. The next phase of this project will incorporate a series of small rain garden tiers on the sloped landscaping surface adjacent to the driveway and will add more native plantings to further stabilize the soils. As you pull into LSPA, take a moment to notice the stonework along with the newly refreshed rain gardens.

United Construction removing pavement to allow for the placement of stonework and vegetation.

The finished project including stonework. LSPA will begin adding more vegetation upslope from the stone swale to further assist in stormwater runoff.

Long Island Sound Futures Fund Grant

In May, LSPA applied for a Long Island Sound Futures Fund (LISFF) Grant to address downstream sedimentation and nutrient loading from stormwater runoff in Sunapee Harbor on Town and Sunapee Harbor Riverway properties. The LISFF grant program is administered by the National Fish and Wildlife Foundation (NFWF) whose mission is to “protect and restore our nation’s fish, wildlife, plants and habitats for current and future generations." The LISFF was established to support projects within the Connecticut River Watershed that improve the water quality of the Long Island Sound.

LSPA’s grant proposal entails the creation of a conceptual plan through community engagement that incorporates a series of stormwater best management practices designed to slow down and treat runoff. Award notifications from the NFWF are to occur by November 2024. If awarded, the project will be carried out in collaboration with the Town of Sunapee and the Sunapee Harbor Riverway.

The Long Island Sound Futures Fund grant proposal addresses sedimentation and nutrient loading into Sunapee Harbor from stormwater runoff.

Clean Up Lake Sunapee

With generous support from a donor, LSPA launched a new program this summer to remove trash from Lake Sunapee using an approach similar to Lake Tahoe's Clean up the Lake project. Dr. Geoff Cook, a marine biologist, New England College Professor, and experienced diver managed the project which began in June. A total of twenty-six volunteers helped with the first phase of the project. The initial dive focused on the area around Sunapee State Beach through a collaboration with the NH Department of Natural and Cultural Resources, Division of Parks and Recreation. Two scuba divers, seven snorkelers and six kayakers worked together to collect hundreds of pieces of trash ferry it back to the beach where it was sorted and cataloged by additional volunteers using United Nations Guidelines for categorizing litter. Volunteers included faculty and students from New England College as well as Invasive Watch Volunteers and Calhoun Fellows. While this project was a new initiative, it also served to revive past traditions. Many years ago, volunteer divers associated with LaPorte's Dive Shop and the New London and Sunapee Fire Departments used a similar approach to remove trash from Newbury Harbor, Sunapee Harbor and other areas around the lake. The Clean Up Lake Sunapee Project will continue, focusing on additional high-priority sites in the future.

LSPA Water Quality Lab Manager, Teriko MacConnell, and Dr. Geoff Cook, New England College Biology Professor were the two divers at the event. Dave Beardsley, LSPA Board Director, drove the pontoon boat.

The volunteer team from the Clean Up Lake Sunapee Event held in June at Sunapee State Beach.

Volunteers sorting and classifying the trash collected from Lake Sunapee which included plastic food wrappers, beverage cans, and golf balls.

From the Harbor

This spring and summer have been full of highlights illustrating how LSPA is building on the strong foundation of our long history to meet the growing challenges ahead with renewed energy and commitment. Our iconic water quality buoy, first established in 2007, has been upgraded with new technologies, supporting monitoring and research collaborations locally and globally. LSPA's collaborations with watershed towns and state legislators have resulted in new policies supporting water quality. The Lake Host Program, which originated decades ago at LSPA, was instrumental in catching and eradicating the invasive curly-leaf pondweed that established in George's Mills this year. Updated equipment in our water quality lab housed at Colby-Sawyer College has allowed us to respond to an increasing demand for water quality data, and many projects in the Watershed Management Plan have been completed this year. The cyanobacteria blooms on Pleasant Lake and Little Lake Sunapee this year offer stark reminders of the increasing threats to water quality. The challenges posed by climate change and increasing development will continue to test our ability to maintain the environmental integrity of the lakes and ponds in our watershed.

Elizabeth Harper
Executive Director

Throughout this issue of the Beacon, you can read about a host of collaborative initiatives that have expanded our capacity to meet the challenges ahead with a renewed commitment to a vibrant and sustainable future for the Lake Sunapee watershed.

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Photo by: Anthony Dolan

Bringing Area Lake Associations Together to Discuss Common Challenges

This past winter and early spring, LSPA hosted monthly meetings for members of lake and pond associations to discuss the current topics affecting waterbodies in New Hampshire that are at the forefront of our minds. In January, we focused on road salt. Mike Thomas from Little Lake Sunapee shared a presentation called "Being a Smarter Salter." His presentation included quick facts about road salt and its usage in New Hampshire, alternatives to road salt, and what homeowners can do to reduce their impact. In February, Jeff Marcoux, NH Department of Environmental Services (NHDES) Watershed Supervisor, shared information about funding opportunities for developing watershed management plans that meet EPA criteria. NHDES Chief Aquatic Biologist Dave Neils gave a presentation in March on the new Statewide Cyanobacteria Plan including the key strategies and goals to address the increase of cyanobacteria blooms in New Hampshire's lakes and ponds and eventually to control them in our waters.

These meetings provide stakeholders, whether residents, volunteers or lake enthusiasts, an opportunity to share ideas and concerns, while discussing their experiences, current projects, barriers to success and plans to move forward. If there are topics that you would like to discuss, please reach out to Susie at susieb@lakesunapee and we will add them to our list of future topics.

The Center for Lake Studies Harbor Room had a full house for NHDES Chief Aquatic Biologist Dave Neil's presentation on the Statewide Cyanobacteria Plan.

Mike Thomas presenting his "Being a Smarter Salter" presentation.

Bill Stockwell of Otter Pond, Stu Greer of Otter Pond, LSPA Watershed Director Geoff Lizotte, and Jim Lantz of Eastman Pond engaged during Mike Thomas's "Being a Smarter Salter" presentation in January.

What you do on your property can have a big impact on water quality!

Here are some tips to help keep our lakes clear:

- Minimize your lawn area and plant trees and shrubs along the water's edge
- Don't apply fertilizers within 100+ feet of shorelines and streams
- Direct stormwater from driveways and roofs into forested areas and rain gardens

Scan the QR code to learn more about LSPA's Let's Be Clear campaign.

LET'S BE CLEAR

Education

The first half of 2024 has been remarkably successful for LSPA's educational outreach. Participants have had the opportunity to further their knowledge of a wide variety of topics in many different settings. The objective of our outreach programs is to enable participants to positively impact our environment by learning the "why" supporting the "need" and the "how" to make meaningful positive change to support our environment.

Education Director, Kathleen Stowell, releasing brook trout with Sutton Elementary sudents.

Adult Education: Landscapes and Healthy Lakes

Landscape professionals attended a two-day workshop presented by DES and UNH Cooperative Extension partnering with LSPA, to learn about environmentally friendly practices and the science behind the rationale for their use. Two other programs gave adults the opportunity to learn about the importance of managing their own backyards to support wildlife and pollinators. Participants were then able to do some hands-on planting of important native species to cultivate in their own gardens as well as at the Center for Lake Studies. Long time LSPA Volunteer, Sue Venable, gave an engaging, participatory talk about identifying birds by their calls. How does this sort of programing support a healthy lake? Research shows that the more we know about and appreciate the plants and animals that share our watershed, the more likely we are to adopt practices that protect and enhance their habitats. That is a win for the plant and animal species and a win for the watershed!

School Outreach

The fundamental goal of LSPA's school outreach program is to help children cultivate a solid understanding of the natural world while developing a strong "sense of place," a deep understanding and respect for the natural communities we live in. Meeting this objective can only serve us well as we look to the future. During the past few months, a wide age range of students in eight classrooms learned about the life cycle and habitat needs of brook trout through LSPA's partnership with NH Fish and Game Trout in the Classroom program. Students not only learned about brook trout habitat needs, but also that they are an indicator species for water quality, and that humans can impact water quality negatively or positively.

Another successful program this spring was our annual Gift of the Glacier production at KRES New London. This program is a week-long exploration of the concepts of watershed science and protection.

The culminating event, performance of the educational play, was attended by over 250 students and family members.

The generosity of members supports these efforts. To realize LSPA's core mission we must keep in mind that positive, collective community action is grounded in education.

New London second graders journaling along the Sunapee Harbor Riverwalk.

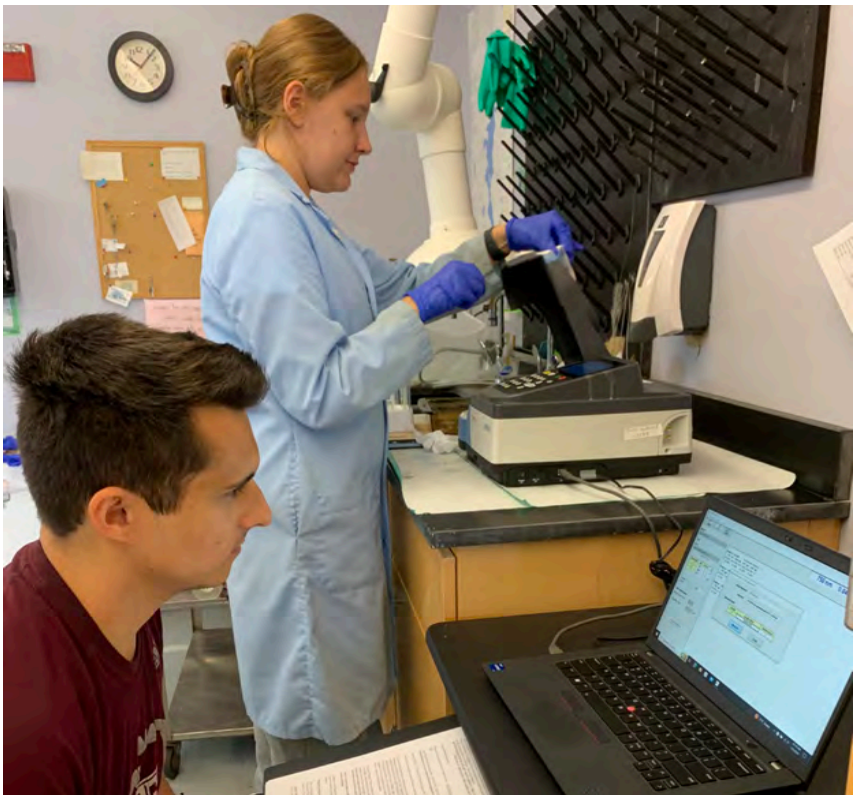
Landscape professionals were tasked with creating a plan for the Sunapee Harbor Riverway as their final project for the two-day workshop.

> The world is changed by your example, not your opinion.
>
> - Paulo Coelho

Collaboration Makes for Water Quality Lab Excellence

"It takes a village to raise a child" and it takes collaboration to support a water quality lab – the LSPA lab, housed at Colby-Sawyer College (CSC) is just such an example. LSPA provides the overall management and coordination of the lab, including financing for personnel, equipment, supplies and all operating expenses. The lab manager is a joint position with a portion of the time responsible to LSPA and the water lab and a portion of the time responsible to CSC and its science programs.

NH Department of Environmental Services performs quality assurance/quality control (QAQC) functions necessary to ensure reliable and accurate analyses as well as offering overall technical expertise, database support and analytical procedures. However, NHDES does not supply funds to support the lab. The partnership with Colby-Sawyer College provides facilities for the lab in the College's science building as well as the opportunity for many joint educational ventures. Without the funding from LSPA, this satellite lab for NHDES would not be sustainable. This lab is a priority for LSPA to maintain and contribute to the long-term data set that has been generated since 1986 and that informs our water quality work.



LSPA's Water Quality Interns Noelle Killarney and Vinny Leone processing water samples in LSPA's Water Quality Lab at Colby-Sawyer College.

The data from Lake Sunapee is used for research by scientists all over the world. It also contributes to the understanding of lakes by state and regional planners and is used to guide policies and regulations. Recently we have added a few new items to the lab which support our long term data collection.

LSPA's Water Quality Interns Noelle Killarney and Danny Cronin conducting deep site sampling on Lake Sunapee with Watershed Director Geoff Lizotte.

A new refrigerator allows for a dedicated space to store the total phosphorus standards, reagents and samples. This has been a beneficial addition to the lab, saving on space and keeping our phosphorus supplies separate.

We have a new *E. coli* system that aligns with what NHDES uses, a gift to LSPA through a family foundation grant. It is much more efficient than the previous method, saving time for staff during the busy summer months. We will now be able to handle more *E. coli* samples than in previous summers.

We are excited that Perkins Pond, Messer Pond and Little Lake Sunapee are all expanding their sampling to support a Watershed Management Plan application. Pleasant Lake has hired three Colby-Sawyer students to continue their expanded sampling of tributaries throughout the summer. These students will be using LSPA's laboratory equipment to analyze their samples. Another collaboration!

Summer Interns

This year LSPA has hired four interns to expand our capacity in the water quality lab and to support important work with our partners throughout the watershed. During the busy summer season, interns have been processing water samples for lakes throughout the Lake Sunapee Region, assisting in Watershed Mangement implementation, and helping with LSPA events.

Noelle Killarney

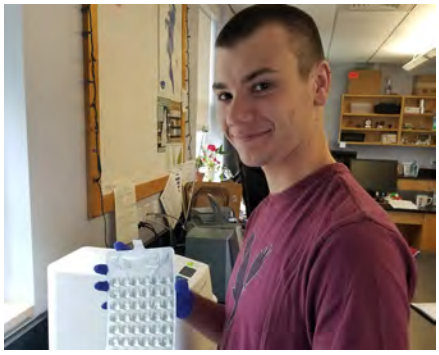
Noelle Killarney is currently going into her fourth year at the University of Maine in Orono, working towards a degree in marine sciences and concentration in biology.

She enjoys hiking in the summer and snowboarding in the winter. Noelle also swims competitively for her school's club swim team.

Throughout high school, Noelle studied tardigrades in local water systems, which is how she developed an interest in lab work and research.

As someone who cares about the environment and conservation, she is looking forward to learning more about water quality testing and hopes to apply what she learns through her LSPA internship to marine ecosystems in the future.

Danny Cronin



Danny Cronin is a rising senior at Bates College in Lewiston, ME. He is majoring in Biology and minoring in Educational Studies. Danny grew up in Bedford, NH with his parents, two older sisters, and five younger brothers.

Last fall, Danny took a research class at Bates that focused on examining the water quality of the Androscoggin River. He learned various skills that related to water quality assessment, including river sampling, plating and culturing, metagenomic sequencing, and microbial data analysis.

Danny is thrilled to have the opportunity to put this knowledge to practical use with LSPA. Danny is also excited to engage the public using his academic background in education.

Ryan Bassi

Ryan is currently a junior at Franklin Pierce University studying Environmental Science. Ryan has grown up in the Lake Sunapee area and throughout his whole life has spent summers in and around the lake. In his free time, he likes to hike, paddleboard, and play basketball with friends.

Vinny Leone

Vinny grew up in Salem, NH with his parents, an older brother, and an older sister. He enjoys playing sports, fishing, and going to the beach. Vinny recently graduated from New England College with a bachelor's in Conservation Biology. Originally a bioengineering major, Vinny transferred from Endicott College his sophomore year to begin a new chapter at New England College.

Vinny did research at New England College last summer, and has presented his work at conferences. He was given the opportunity to do research in the waters of Belize this past winter. These opportunities have made it clear that he wants to continue pursuing lab work and research. Vinny is assisting with water quality while simultaneously continuing research on environmental DNA (eDNA) in Lake Sunapee.

Ryan has had a passion for lakes and conservation for many years and is excited to learn more about Lake Sunapee and water quality.

New Hampshire Legislature Concludes Busy 2024 Session

In June, the New Hampshire Legislature, the second largest legislative body in the country following the US Congress, concluded its 2024 session after considering a number of bills with significance to the health of our watershed and other watersheds in New Hampshire.

Among the bills which passed the legislature were:

- A bill to require buyers of waterfront property to inspect and potentially replace aging septic systems, a dangerous source of pollution for our lakes
- A bill which would create a limited fund to provide emergency relief to treat cyanobacteria blooms, which have been appearing at increasingly alarming rates
- A bill, sponsored by Rep. Dan Wolf of Newbury, which would provide clear authority to the Marine Patrol to establish temporary wake bans on lakes during emergency conditions such as we experienced during the summer of 2023

LSPA Board Directors and Legislative Committee Members Betsy Cetron, Frank Lemay and Larry Briggs with Executive Director Elizabeth Harper in front of the Capitol Building in Concord.

Two bills closely followed by LSPA did not pass the legislature:

- A bill which would allow communities in a common watershed to voluntarily form lake districts for the purpose of enacting common planning and zoning regulations. The bill was narrowly defeated in the House
- A set of contentious bills involving the sport of wake surfing also failed to pass the legislature. Efforts by lake advocates to require standards identical to those recently implemented in Vermont narrowly failed to pass the House. However, those efforts led to the defeat of a bill sponsored by the wake sports industry which would have offered no protection to our lakes or its users.

In 2023, LSPA formed a Legislative Committee to follow the dozens of bills introduced to the legislature and advise the Executive Director on when and how LSPA and its membership might get involved. Early feedback from our legislators suggest that the voices of our members were loudly heard on a number of bills. Thank you to all who responded to our calls for advocacy.

Thank you to our partners at NH Lakes for their support and collaboration during this legislative session!

Progress on Local Policies to Support Water Quality

Michael Marquise was one of many Sunapee Town employees who worked on changes to zoning ordinances that promote water quality.

Residents of the Town of Sunapee had the opportunity to vote on several important water quality articles this spring due to the tireless efforts of town staff and members of the Selectboard, Zoning Board, Planning Board, and Conservation Commission, as well as active and engaged community members.

The following important articles passed by wide margins in Sunapee's town election:

- The addition of Otter Pond Brook to the list of protected waterways in the Water Resources Shorelines Overlay District
- The addition of steep slope district provisions to the zoning ordinance to create an overlay district regulating construction on slopes exceeding 15%
- The addition of provision to the Zoning Ordinance for erosion control to limit allowable land disturbance within the 50 ft shoreline buffer
- Allowing the Town of Sunapee to apply for and accept state and federal funds to prepare a Watershed Management Plan for Perkins Pond

Policies requiring regular maintenance of septic systems have also been adopted and implemented in the Town of Sunapee and are being discussed in the towns of Newbury and New London.

Lighthouse Work to Start This Summer

By: Midge Eliassen

It is happening! LSPA has contracted with the Hansen Marine division of Hansen Bridge LLC of Springfield, NH for the major project of constructing new support structures for the Herrick Cove and Burkehaven lighthouses. Work on Herrick Cove will be done this summer and fall, with Burkehaven to follow, this fall or spring 2025, as weather permits.

New steel supports embedded in the bottom of the lake will replace the wood and rock cribs which deteriorate and need replacing every 15-20 years. This robust approach should have a lifetime of 60+ years. NH Department of Environmental Services has welcomed this solution as more environmentally sound and less disruptive to lake water flow.

The tilt at the Herrick Cove Lighthouse. Photo by Midge Eliassen.

Herrick Cove Lighthouse. Photo by Midge Eliassen.

LSPA's facilities committee, chaired by board member Frank LeMay, who is an engineer and contractor, worked with a marine engineer from Civilworks New England to evaluate the concept and design the new supports.

The foundations selected are very cost-effective in the long run, but their construction, including contingencies, will cost $1,200,000. LSPA, in its state-sanctioned role as maintainer of these historic structures, will turn to members and the broader community to fund the work on the lighthouses, which contribute so much to our sense of place. As always, LSPA maintains funds restricted for the lighthouses separately from membership donations that support our environmental mission and its annual budget.

Visit the Center for Lake Studies!

We're located at 63 Main St. in Sunapee Harbor

- The Center for Lake Studies is open Monday through Friday 9:00AM-5:00PM
- Explore our educational displays
- Attend free presentations and workshops
- Learn about our watershed
- Meet Moses the turtle

Join Us for These Upcoming Events!

August 11, 9:30 AM:
Love Your Lake Day &
Antique Boat Parade

September 17, 5:30 PM:
Full Moon Cruise

LSPA
PO Box 683
Sunapee, NH 03782

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New Look. Same Mission.

In March of this year, LSPA adopeted a new brand and logo. LSPA's first logo, created in 1989, depicted the Loon Island Lighthouse, an iconic symbol of Lake Sunapee.

In 2001 a new logo was developed to incorporate the watershed concept — including the mountains and forest surrounding the lake. This image symbolized an important shift in the scope of LSPA's work and in the recognition of the interconnectedness of our lands and waters.

In 2023, as we celebrated our 125-year history, we looked ahead to our next chapter as an organization. With renewed commitment to ensuring a bright and vibrant future for the Lake Sunapee watershed, the LSPA board approved our new logo in March of 2024.

In the face of the daunting challenges that lie ahead for our lakes and ponds, we remain committed to a sustainable and collaborative future, using community engagement, education, and a scientific approach to ensure an environment that leaves a lasting legacy for future generations. We hope you will join us in these efforts.

1989

2001

2024

The Mission of LSPA

LSPA, founded in 1898, is dedicated to preserving and enhancing the environmental integrity of the Lake Sunapee region, especially its lakes and watersheds, through education, research, and collaborative action.

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