



Please become a member of the Lake St. Catherine Association.

Your dues and contributions help fund vital programs for LSC!

Each year, the Lake St. Catherine Association (LSCA) reaches out to the lake community asking for all who care about Lake St. Catherine to become a member and make contributions to help fund lake management programs in support of our mission: the preservation, protection and maintenance of Lake St. Catherine. Your contributions, donations, state and local government funding, and grants all contribute to our yearly budget.

The LSCA works year-round on our lake management programs, some of which include: stormwater runoff & pollution control (Lake Wise, Stormwater Master Plan), water testing, lake safety, Milfoil Control, and boat launch monitoring / aquatic invasive species education & prevention (Greeter Program), and we've begun work on a comprehensive long-term water quality plan for LSC called the Lake St. Catherine Watershed Action Plan.

We hope you'll join us and offer your support in 2023!

Contributions to Lake St. Catherine Association may qualify as charitable contributions! LSCA is an approved public charity and is exempt from Federal Income Tax under §501 (c)(3) of the Internal Revenue Code. Contributions to LSCA (beyond dues) may now be deductible under §170 of the code. LSCA is also qualified to receive tax deductible bequests, devises, transfers or gifts under §§2055, 2106 or 2522 of the code.



2023 Membership Application

2023 Dues Schedule

Cottage owner	\$100 per cottage
Business Sponsor	\$200
Unimproved lot owner (no dwelling)	\$50
Supporter of Lake St. Catherine (family members of property owners, renters, recreators)	\$35

Contributions to the LSCA in excess of the annual dues qualify as charitable contributions and may be tax deductible!

Many employers have a matching program for charitable contributions - we encourage you to check into this!

(LSCA is an approved public charity under §501 (c)(3) of the Internal Revenue Code.)

There are 2 easy ways to become a member or renew your membership:

1. Visit lakestcatherine.org, click on Membership, and fill in the online form to pay by credit card
2. Fill out the form below, include your payment, and mail to PO Box 631, Wells, VT 05774

DUES AMOUNT: _____
 ADDITIONAL CONTRIBUTION: _____
 TOTAL ENCLOSED: _____

Owner: _____
 Lake 911 Address: _____
 Lake Phone: _____
 Permanent Address: _____
 Permanent Phone: _____
 *Email Address: _____



2023 Member Gift Embroidered Patch

* Please be sure to provide your email address so we can keep you up-to-date with LSC news and updates! Your email address is also your username to log into your account on the lakestcatherine.org website.

Please complete this form and send along with your check payable to **Lake St. Catherine Association** to:

Lake St. Catherine Association
 PO Box 631
 Wells, VT 05774



2022 LSCA Year In Review Summary

At the end of each season, we like to take some time to present a recap of the work performed by the LSCA for Lake St. Catherine on behalf of the lake community and our membership. What you'll read below are summaries of the projects and activities. We encourage you to visit our website and click on our Blog to read the detailed accounts. It was another busy year from start to finish!

Highlights

Membership: First, a sincere THANK YOU to everyone who contributed to the LSCA this year! Our membership continues to grow - which means that there are funds available to help support our lake programs that everyone who enjoys Lake St. Catherine benefits from. Also, it shows that we have a great community of lake stewards who are invested in the preservation, protection, and maintenance of Lake St. Catherine. At the end of 2021, we set an ambitious goal of reaching 400 members... and we came SO CLOSE. We ended 2022 with 389 members who contributed a total of \$79,581, giving us an average contribution of \$208. While we did come up just a bit short of our goal of 400 members, we did surpass our 2021 totals for both total members, and dollars contributed - and we continue to build on these numbers year over year. Can we crack the 400 member mark next year? This will be our goal as we continue to reach out to LSC property owners, and hope to expand our reach with membership levels for family members of property owners, renters, and those who use the lake for recreation. We hope to earn your support in 2023!

The Lake Wise Program: It was another great season for Lake Wise on Lake St. Catherine! Lake Wise is a program developed by Vermont's Lakes and Ponds Program to recognize outstanding efforts by homeowners who live along a lakeshore to protect the water quality and habitat along the shoreline and within the near-shore area of the lake. Stormwater has a widespread environmental impact which makes it a growing concern in Vermont. Excess nutrients in the water contribute to problems which affect both human and wildlife health including; lower oxygen levels in the water, toxic algae blooms, and excessive plant growth. This season, the LSCA again earned a grant from the Lake Champlain Basin Program (LCBP) to perform Lake Wise assessments, and to help property owners with projects on their land to mitigate stormwater runoff into the lake. The LSCA was happy to again partner with the Poultney Mettowee Natural Resources Conservation District (PMNRCD) on this project, along with new partner Castleton University. The PMNRCD crew completed a tremendous amount of work in support of the Lake Wise Program this season. They were also able to leverage their Lake Education Action Program (LEAP) program, which pairs student and community lake education with the implementation of small planting projects for shoreline owners to increase the amount of projects completed. Building on the work of previous years, and the efforts of 2022, 10 property owners earned the Lake Wise Award this year! This brings the total number of Lake Wise Award properties on LSC to 26. Thank you to all the winners and Lake Wise participants for the work they have put into their property in an effort to become Lake Wise. This work represents a model of what all LSC lakeshore owners should strive for, as these projects are both beautiful and lake friendly. All winners will be receiving the Lake Wise Award plaque that they can proudly display on their shoreline. Keep an eye out for them as you cruise around the lake next season. The LSCA would like to help other Lake St. Catherine property owners implement best practices to mitigate stormwater on their properties, and help them to earn the Lake Wise award. To date, over 80 properties have participated in the Lake Wise Program, and have at least received an initial assessment. If you would like to have your property assessed, please email us at info@lakestcatherine.org.

Watershed Action Plan: In May of 2021, the LSCA earned a grant from the LCBP to help fund the creation of a Lake Watershed Action Plan (LWAP) for Lake St. Catherine. In partnership with the PMNRCD, the LSCA will use this 3-year grant to hire and partner with lake experts to perform various in-lake and watershed based measurements, testing, and studies to identify current or potential future issues and design a comprehensive, long-term plan to address them. The LSCA is now poised to integrate our existing programs into a broader watershed plan with a focus on the prevention of pollutant loads (phosphorus, nitrogen, sediments) that enter into LSC from sources outside the waterbody. We plan to use the success of these building blocks to expand our work in the watershed and focus on prevention for the future. Preliminary work began this year, including our first stakeholder meeting at the Wells Lakeside Park on July 14th. The lake community was invited to join us, and representatives from PMNRCD, Castleton University, and Fitzgerald Environmental Associates for a presentation introducing and outlining our plans for the LWAP. Field work will begin in 2023.



Boat Launch Monitoring - Greeter Program: Our Greeter Program is very important to the health of Lake St. Catherine. Our Greeters have been trained to identify aquatic invasive species (AIS) - like spiny waterflea, asian clams, water chestnut, starry stonewort and zebra mussels (many of which are only a lake away) - to stop them from entering LSC. Each year, they do a fantastic job checking vessels at the boat launches, and educating the lake community on the dangers of invasive species for Lake St. Catherine. They are on duty from Memorial Day through Labor Day - working on Friday, Saturday and Sunday. They also cover holidays and fishing tournaments. In total, our Greeters inspected 1960 boats this year at the boat launch in Wells, and at the State Park in Poultney. This is more than double the number of vessels they inspected last year. Boat launches were down in 2021, most likely due to numerous rainy weekends last season. Thank you to our Greeter team! They work hard each season to keep AIS out of Lake St. Catherine.

Lake St. Catherine Stormwater Master Plan: In 2018 and 2019, extensive field work by the PMNRCD and Fitzgerald Environmental Associates took place in the LSC watershed. The goal was to identify sources of increased stormwater runoff and associated sediments and nutrients flowing into the lake. Phosphorus reducing projects are of particular importance given the water quality concerns within the watershed. The work involved identifying sources of stormwater, prioritizing sources based on various environmental, economic, and social criteria, and designing projects to mitigate those sources. This resulted in the creation of the Lake St. Catherine Stormwater Master Plan (SWMP). 50 potential sites were identified, and as of today, 4 projects have been implemented, and 2 others have been designed and are awaiting installation. Projects have recently been completed on North Street, Ferncliff Road, the boat launch in Wells, and at the Wells Lakeside Park. That leaves 44 others that need to be evaluated, designed, and implemented. In early January, we were informed that we had earned part of a \$100k grant being administered by the PMNRCD from the LCBP. \$50,000 of this grant will be used directly for Lake St. Catherine to design Stormwater Master Plan Projects on LSC. The goal of our approved grant in 2023 is to develop 10-12 projects identified in the Lake St Catherine Stormwater Master Plan to be ready for implementation during the first round of Clean Water Service Provider formula grant funds in 2023 and thereafter. Our Project Team, consisting of the LSCA, PMNRCD, local partners, and the selected consultant will identify a list of high and medium priority projects and develop 30% conceptual designs for those that rank within the top 10-12. Included with the conceptual designs will be detailed budget estimates, anticipated permitting needs, and preliminary landowner agreements or letters of interest. We hope to have a meeting soon with the lake community to select the top projects to be developed. You can read more about the SWMP, and view an interactive map with the identified sites on our website.

Milfoil Control: Each season, the LSCA implements a Milfoil Control Program to keep milfoil in check in Lake St. Catherine using a combination of spot herbicide treatments and DASH (Diver Assisted Suction Harvesting). The LSCA's Milfoil Control Program consists of four components:

1. 'Stop The Spread' education and outreach. Our 'Stop The Spread' campaign educates boaters and property owners on best practices to limit the spread of milfoil. Each year, the LSCA holds a lake community meeting to discuss the control plan for the season, answer questions, and hand out a flyer with best practices for lake users to limit the spread of milfoil.
2. Volunteer milfoil cleanup. Throughout the season, we organize volunteers to collect detached floating milfoil from the lake and deposit it on our designated drop off platforms. The milfoil is then picked up from the platforms and disposed of. We also encourage boaters and property owners to remove any milfoil they see in the lake or on their shoreline.
3. DASH - Diver Assisted Suction Harvesting. Our DASH crew suits up in scuba gear and hand-pulls milfoil by the roots from the lakebed. In sections of lower milfoil density, they will swim the area and hand-pull with mesh bags. In higher density areas, they will set up the DASH equipment which allows them to suction the hand-pulled milfoil up through a tube to a catch table on a boat. Milfoil is then placed in 17.5 gallon buckets for transport off the lake.
4. Herbicide spot treatments with ProcettaCOR EC. In order to maximize our DASH crew's time, effectiveness, and number of acres covered, one of our control methods includes spot treatments with the herbicide ProcettaCOR.

Although not directly related to Milfoil Control, the LSCA's work on the Lake Wise Program, the LSC Stormwater Master Plan, and the LSC Watershed Action Plan all help to limit phosphorus and other nutrients from entering the lake which can contribute to excessive plant growth (and improves overall water quality).



These efforts led to another successful year of milfoil control on Lake St. Catherine, and have resulted in the lowest percentage of milfoil cover and frequency of occurrence in the lake since the mid-2000s. Also, and just as importantly, we have seen many species of our native aquatic plants that have been suppressed by milfoil growth like Water stargrass, Tape grass, Thin-leaf pondweed, Illinois pondweed, Common waterweed, and Robbins' pondweed have all increased in frequency of occurrence. These results are exactly what we want to see! Lake St. Catherine has over 30 native aquatic plants which are important and necessary to sustain a healthy lake ecology. Our efforts are focused on reducing the amount of milfoil in the lake so that these native aquatic plants can grow as they normally would. Keeping milfoil under control is helping to return the aquatic plant environment to conditions before milfoil was introduced in the 1970s. Because of our milfoil control efforts, we again have a complex and diverse native aquatic plant community. In late September, our contractor SOLitude Lake Management performed a comprehensive, 2 day lake-wide aquatic vegetation survey to both evaluate the performance of our milfoil control efforts, and to assess the overall state of aquatic plants in Lake St. Catherine. Back in 2001, 199 GPS points were plotted throughout Lake St. Catherine, and these points are evaluated for aquatic plants during each report. This is the 19th consecutive year a plant survey has been performed on Lake St. Catherine. You can see all the reports, dating back to 2004 in our Links & Downloads section, and we encourage you to take a few moments to read through the current report. Based on the data, and the results we've all seen throughout the whole of Lake St. Catherine, our Milfoil Control Program had a very successful year. The ProcellaCOR treatments were highly effective, our DASH team did another great job this year (252 buckets of milfoil removed), and you got involved as well by participating and volunteering to collect floating milfoil from June through October as part of our Milfoil Cleanup Community Day. We also heard numerous reports throughout the season of folks removing milfoil from their props, their shorelines, and if it happened to float by their dock. These collective efforts are making a difference! In early May, the lake will again be surveyed for milfoil growth. At that point, a final treatment map will be created which will show the areas to be addressed.

Libraries Love Lakes: The Wells Village Library, the Lake St. Catherine Association (LSCA) and the Lake St. Catherine Conservation Fund (LSCCF) joined forces to bring the lake community a very exciting event! On July 3rd at the Wells Lakeside Park, the Libraries Love Lakes event took place, offering family-friendly opportunities for stewardship-based, hands-on, lake-related learning. Ecology-based topics like native flora and fauna, stormwater impacts and natural history were all on the agenda, including real-time water quality assessments in which guests can participate, expert presentations, and pontoon boat tours. The first 20 families to arrive received a lake-themed kit replete with on-topic books and activities. Presenters included: Wells Village Library, Lake St. Catherine Association (LSCA), Lake St. Catherine Conservation Fund (LSCCF), Castleton University, Poultney Mettowee Natural Resources Conservation District (PMNRCD), LSCA's Greeter Program, LSCA's Diver Assisted Suction Harvesting (DASH) team, Wells Historical Society, Loon Biologist Eric Hanson from Vermont Center for Ecostudies. Libraries Love Lakes is a national outreach project which pairs school and public libraries with lake scientists to provide collaborative programming emphasizing the importance of lakes in our everyday lives. You can learn more by visiting www.librarieslovelakes.org. To help fund this event and ongoing collaboration among the library and lake organizations, the LSCA applied for and received an Education & Outreach grant from the Lake Champlain Basin Program (LCBP) funded by the New England Interstate Water Pollution Control Commission (NEIWPC). The lake-related learning continued at the Wells Village Library, as a new section of the library called the 'Lake St. Catherine Collection' was unveiled with a reception at the library on September 17th. The collection curated by librarian Gina Ellis includes books, activities, experiments, iPad apps, models, and science tools like dip nets and binoculars that can be borrowed. Materials to learn from are available for all ages. Be sure to stop in to the library to check out all the lake & stewardship themed materials. There is so much to learn from and enjoy! Thank you to everyone who contributed to make this wonderful event on LSC a success! We hope to continue this program in 2023.

Wastewater Workshop: On July 11th, at the LSC Country Club, the LSCA hosted a 'Wastewater Workshop' presentation by Cristin Ashmankas, Environmental Analyst with the State of Vermont's Department of Environmental Conservation, Drinking Water & Groundwater Protection Division. Cristin talked about the basics of septic systems: how they work, why they are so important, how they fail, and how to properly maintain them. She also outlined how they are designed, and the many different types of systems that are available - including innovative and alternative systems that can be used in unique situations. She also discussed the rules, where to get help, and why it is so important that systems be fully working around the lake. Her presentation, and contact information is available on our website. If you have any septic system questions, please reach out to Cristin, she would be happy to help!



The LSCA's Annual Meeting & Dinner: Thank you to the tremendous group we had at the LSC Club on Saturday, July 23rd for the LSCA's 2022 Annual Meeting & Dinner. It was great to see so many of you who care so much about LSC. What a crowd! We hope you enjoyed our presentation, your meal, and your evening with your lake neighbors. We'd also like to thank the LSC Country Club staff for their excellent service and a wonderful meal, Eric Hanson from Vermont Center for Ecostudies for his fantastic presentation on loons, and to our Trustees for their excellent reports from their committees, and their hard work for LSC. You can see photos from the evening and view the full presentation on our website Blog.

Vermont Invasive Patrollers (VIP) Program: On August 9th, LSCA Trustees were trained by the DEC to perform aquatic invasive species (AIS) patrols of the lake as part of their Vermont Invasive Patrollers (VIP) program. The VIP program was established by the VTDEC in 2007 to focus on early detection of all known and potential AIS. This hands-on workshop trained participants on what aquatic invasive species are, how to prevent the spread of AIS, and how to identify the species that pose the greatest threats to LSC. The goals of the program are: To increase AIS knowledge of lakeshore residents and lake users, to create an early detection volunteer network with a primary focus on aquatic invasive species, including plants and animals, and to increase VTDEC's knowledge of new infestations and the spread of AIS in lakes. This is a GREAT addition to our invasive species control and prevention initiatives which includes our Greeter Program. We hope to work with and train volunteers to help launch this program on LSC in 2023 - please contact us if you are interested. VIPs monitor the lake, especially near boat launches, for new introductions of invasive species and report their findings to the DEC. If a new AIS is detected early, it's possible to eradicate it before it infests the lake.

Loon Observation & Loon Safety Projects: We've been working with Eric Hanson from the Vermont Center for Ecostudies and Scott MacLachlan to come up with a form to log and record data about the loons visiting LSC. We are hoping that their increased visits to LSC will lead to a nesting pair! The number of loons observed on LSC has been increasing over the past few years, as has the excitement and interest of the lake community. So, we've set up a form for you to be able to record your observations of loons on the lake! We ask that you please DO NOT approach the loons. If you see them, observe them from your location, take a photo if you'd like, and then visit the forms listed below to log your observations and notes. There are 2 forms. One will allow you to upload photos or a short video of your loon observation, but it does require that you have a Google account. The other form does not require a Google account and will allow you to record your observation, but you will not be able to upload a photo or video. On the form, you can add your name and email address (optional), the date, location, number of loons, a place to indicate if you see a subadult loon, and a description of their activity that you observe. Here are the forms: 1. Loon observation form (With Photo): <https://bit.ly/lsc-log-loon-photo> (Google Account required), 2. Loon observation form (No Photo): <https://bit.ly/lsc-log-loon-no-photo>. We also hope to launch a new loon program in the spring with the Vermont Center for Ecostudies by participating in their lead & monofilament fishing line collection initiative. You can read more about this project in our Fall newsletter.

Grants: The LSCA has been working hard over the fall to bring grant funds to Lake St. Catherine for 2023. We have applied for a grant from the State of Vermont and from the LCBP for AIS control and prevention, and two other grants from the LCBP to help fund our Lake Wise Program (which we have earned for 2023!), and an expanded Libraries Love Lakes program for 2023. Keep your fingers crossed.

Other Initiatives: Other initiatives included: two free boating license classes, placement and maintenance of the buoys and markers around the lake, the 10th Annual LSCA Boat Parade, Dockside Chats with LSCA Trustees, the Annual, spring and fall newsletters, organizing volunteers for community events like Green Up Vermont Day, and Milfoil Cleanup Community Day, and constant communication of LSC news via our website www.lakestcatherine.org and our Facebook page.

Thank You For Your Support

Thank you to everyone who supported us this year. We hope you found our efforts in 2022 for Lake St. Catherine to be worthy. It's going to be another busy year, and we hope to earn your support again in 2023! Be well, and we'll see you at the lake soon.

- The Trustees of The Lake St. Catherine Association