

Lake Champlain Sea Grant and the Lake Champlain Basin Program --- Partnership ---



Collaborating for a Healthier Environment and Thriving Communities in the Lake Champlain Basin

Lake Champlain Sea Grant (LCSG) and the Patrick Leahy Lake Champlain Basin Program (LCBP) have complementary missions of supporting Lake Champlain ecology, economies, and people. The long-time partnership between the organizations serves to strengthen our work toward common goals in the Lake Champlain Basin.

The LCBP coordinates and funds efforts to benefit the Lake Champlain Basin's water quality, fisheries, wetlands, wildlife, recreation, and cultural resources, in partnership with government agencies from New York, Vermont, and Québec, private organizations, local communities, and individuals.

The LCSG develops and shares science-based

knowledge to benefit the environment and economies of the Lake Champlain Basin. LCSG is a cooperative effort of the Rubenstein School of Environment and Natural Resources at the University of Vermont (UVM) and the Lake Champlain Research Institute at the State University of New York College at Plattsburgh. It operates through partnerships with UVM Extension, state and local government agencies, and numerous other local organizations.

Because the organizations' goals, partners, and impact areas are so closely aligned, LCSG and LCBP staff serve on each other's Program Advisory and Steering Committees, collaborate on funding priorities, and support multiple partnered programs to best serve the Basin.



LCSG and LCBP have complementary missions of supporting Lake Champlain ecology, economies, and people.

PARTNERSHIP ACTIVITIES

K-12 Educator Professional Development

LCSG and LCBP coordinate the Champlain Basin Education Initiative (CBEI), a consortium of environmental education groups in the Basin that provide education to K-12 students and teachers through programs like the *Watershed for Every Classroom* (WEC). WEC is a year-long professional development program for educators who teach in the Lake Champlain Basin. The program provides educators with the knowledge and skills to implement place-based education with their students while exploring watershed locations with scientists and prototyping activities suitable for classroom and field-based hands-on learning.

The Watershed Alliance Teacher and Researcher (WATR) Partnership is a new professional development program for K-12 educators in the Basin, hosted by LCSG's Watershed Alliance and funded in part by LCBP and NEIWPC. The summer 2024

WATR program expanded on existing opportunities and leveraged local research activities and a state-of-the-art research vessel to provide teachers with an immersive year-long science program related to watershed science and water quality issues. Teachers engage in lake sampling, assist with long-term monitoring efforts, work with large datasets, and employ place-based learning practices. This approach emphasizes the importance of creating watershed science learning experiences that are local and relevant to students.

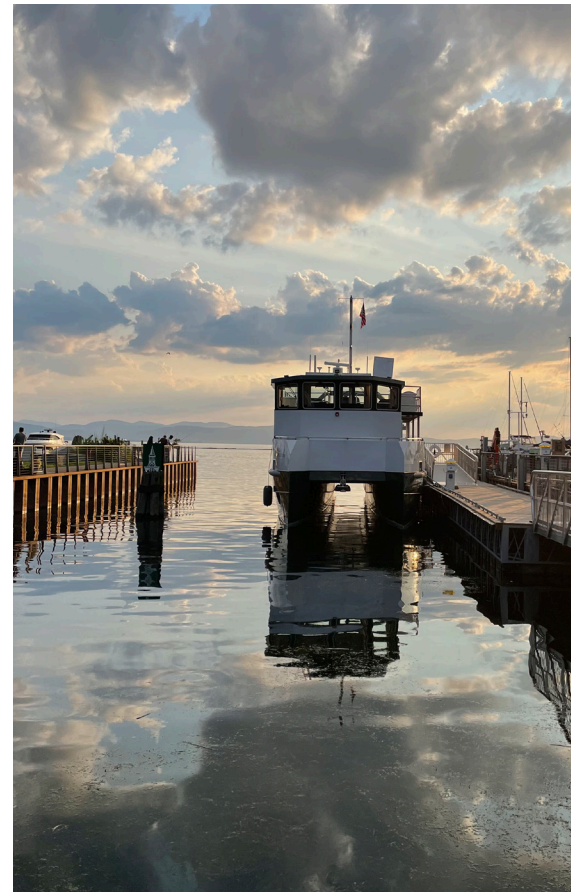
Community Education and Engagement

In coordination with the Vermont Fish and Wildlife Department, New York Department of Environmental Conservation, and local groups, LCSG and LCBP have organized fishing education workshops for Basin residents. These workshops seek to expand education to Basin communities about fishing regulations and safe fish consumption, to build awareness of and relationships with game wardens, and provide hands-on fishing instruction. Translators are present at these workshops to open participation to more community members. The workshops are free, and participants receive a fishing license, a fishing pole, and life jacket. To support these workshops and promote fishing, a series of videos and signs were developed to help build understanding of fishing regulations and how to buy a license.

For over a decade through the Lawn to Lake partnership, LCBP and LCSG have worked with other watershed organizations on phosphorus fertilizer reduction and the Raise the Blade campaign. The team works with landowners across the Lake Champlain Basin to use lawn care best management practices. Raise the Blade encourages raising the height of lawn mowers to cut grass no shorter than three inches tall to promote root growth and leaving grass clippings on the lawn to act as natural fertilizer. Long grass and long roots help make healthy soil rich with nutrients and microorganisms. Healthy soils are better able to filter rainwater, reducing pollution that enters waterways via runoff. The Lawn to Lake partnership has developed short videos that are shared through social media and at tabling events. The group also distributes signs for partnering communities and businesses to demonstrate their buy-in to the recommended practices.

COVER: LCSG and LCBP staff gathered in 2024 to review shared accomplishments and plan future initiatives. Photo: LCSG

ABOVE: Educators in the *Watershed for Every Classroom* program learned about best birding practices and how to bring birdwatching and mindful observation to the classroom. Photo: LCBP



The Lake Champlain Basin is experiencing an increase in extreme precipitation events. Many organizations across the Lake Champlain Basin work to educate and provide technical assistance to land managers about the importance of effective stormwater management strategies. These practices help reduce impacts on infrastructure and surface waters. LCSG and LCBP coordinate the Unifying Stormwater practitioner network which is an effort across Vermont and New York-based watershed organizations to bring together previously disparate education programs for homeowners, renters, and businesses about on-site stormwater management. In its next phase, the network anticipates adopting common practices, simplifying and enriching the educational messages shared across the Basin, and, in turn, helping reduce stormwater runoff volumes and minimize flooding.

Lake Champlain Research Conference

The LCBP, LCSG, and the Lake Champlain Research Consortium (LCRC) periodically host the Lake Champlain Research Conference. The conference brings together lake and watershed stakeholders, including researchers, management practitioners, and

ABOVE LEFT: Local communities and businesses help share the benefits of stormwater-friendly lawn care practices. Photo: LCSG

ABOVE RIGHT: The R/V *Marcelle Melosira* supports lake research and provides a cutting-edge floating classroom for outreach programs. Photo: LCBP

the public, about the state of research on Lake Champlain. The conference features participation and research from New York, Vermont, Québec, and beyond, providing an opportunity for discussion, networking, and collaboration across Lake Champlain's multi-jurisdictional watershed. In 2022, the Lake Champlain Research Conference was held in Burlington, Vermont, and commemorated the 50th anniversary of the Clean Water Act. Approximately 206 people participated in this event.

GRANT SUPPORT

Road Salt Use Education and Outreach

With funding support from LCBP, LCSG designed and implemented education programs to promote adoption of sustainable road salting practices in the Englesby Brook Watershed. Building upon efforts of LCSG and the UVM Salt Mitigation Task Force, LCSG translated English training videos into four other languages commonly spoken by custodial staff who manage snow and ice at UVM. LCSG staff then used the videos to support in-person trainings for custodians. LCSG also offered trainings and pilot testing

of sustainable salting practices for municipal staff. Finally, LCSG assessed salting practices of businesses in the watershed to inform future outreach.

Stormwater Infrastructure Training and Certification

LCSG, with financial support from LCBP and NEIWPC, hosted the National Green Infrastructure Certification Program, which was administered by EnviroCert International. This training is designed as both workforce development for entry-level workers and professional development for existing water resource professionals. This project trained 15 water resource professionals in the Lake Champlain Basin on the current best management practices for Green Stormwater Infrastructure management, installation, and inspection.

Microplastics in Lake Champlain Research

With the support of the LCBP and NEIWPC, LCSG staff are actively researching the pelagic, tributary, and shoreline sources, pathways, and sinks for microplastics in the Lake Champlain Basin. LCSG is working to understand dynamics of microplastics with respect to; buoyant microplastics in the open-water zone of Lake Champlain, river transport, and deposition of microplastics along urban and recreational beaches. Concurrently, LCSG is carrying out research and educating youth about plastic prevention.



TOP RIGHT: Microplastics can block the digestive systems and alter feeding behavior of fish and wildlife and affect human health.
Photo: Adobe Stock

RIGHT: Fishing education workshops have improved access and enjoyment of Lake Champlain by dozens of community members
Photo: LCSG



Contact:

Anne Jefferson
LCSG Director
anne.jefferson@uvm.edu
(802) 656-4277
uvm.edu/seagrant

Eric Howe
NEIWPC Program Director
ehowe@lcbp.org
(802) 372-3213
lcbp.org

