



Report of Activities Summary

FY2021

(October 1, 2020 – September 30, 2021)



Lake Champlain
Basin Program

Adobe Stock

Fiscal Year 2021 was another landmark year for the Lake Champlain Basin Program. U.S. Federal appropriations for the LCBP and Champlain Valley National Heritage Partnership exceeded \$16 million. This tremendous level of financial support, made possible by our Congressional delegation, will hit the ground in FY2022.

Despite the ongoing COVID-19 pandemic, our research and implementation programs generally were able to resume without significant delays. Education and outreach programming continued, although still at a scaled-back scope. Critical research in these areas will advance the work of the LCBP and its partners in the future.

The LCBP released the latest *Lake Champlain State of the Lake and Ecosystem Indicators Report* in June 2021. The report highlights trends across a series of indicators that inform and guide management of the Basin's resources. The Lake Champlain freeze-over indicator—the first new indicator in nearly 20 years—tracks how often the Lake freezes over completely and the potential impacts of warming trends. Modeling suggests that by 2050 the Lake may only freeze over completely once per decade.

This year, we began taking active steps to listen and learn from all communities in the Basin, particularly those whose voices are not always included in lake management decisions. The LCBP added a new full-time position dedicated to engaging directly with communities in the basin and coordinating the New York and Vermont

Citizen Advisory Committees, and also to work closely with the Québec Citizens Advisory Committee.

To this end, the Lake Champlain Steering Committee and the LCBP staff commit to:

- Including more diverse perspectives in our decision-making;
- Increasing outreach to communities that historically have not been included;
- Fostering a safe and welcoming space at LCBP for everyone;
- Continuing work with our partners to build and strengthen basin-wide efforts to include and support underserved communities.

We will integrate our commitment to these principles into our long-term approach to managing the Basin. They will be as much a part of the fabric of the organization as the financial, technical, and educational support that we have provided for nearly 30 years.

With increased funding and the inclusion of diverse voices, we will hold steadfast to our core mission: coordinating and funding 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.

We are hopeful that engagement with all our communities can safely resume in person in the upcoming year. We look forward to working with you.

OUR WORK

The Lake Champlain Basin Program (LCBP) is a Congressionally-designated initiative to restore and protect Lake Champlain and its surrounding watershed. We work with partners in New York, Vermont, and Québec to coordinate and fund efforts to address challenges in the areas of phosphorus pollution, toxic substances, biodiversity, aquatic invasive species, and climate change. The LCBP also administers the Champlain Valley National Heritage Partnership, which builds appreciation and improves stewardship of the region's rich cultural resources by interpreting and promoting its history.

The LCBP management plan *Opportunities for Action* identifies four goals that address the key resource issues facing Lake Champlain and its watershed. These four goals—clean water, healthy ecosystems, thriving communities, and an informed and involved public—serve as the framework for much of the LCBP's work.

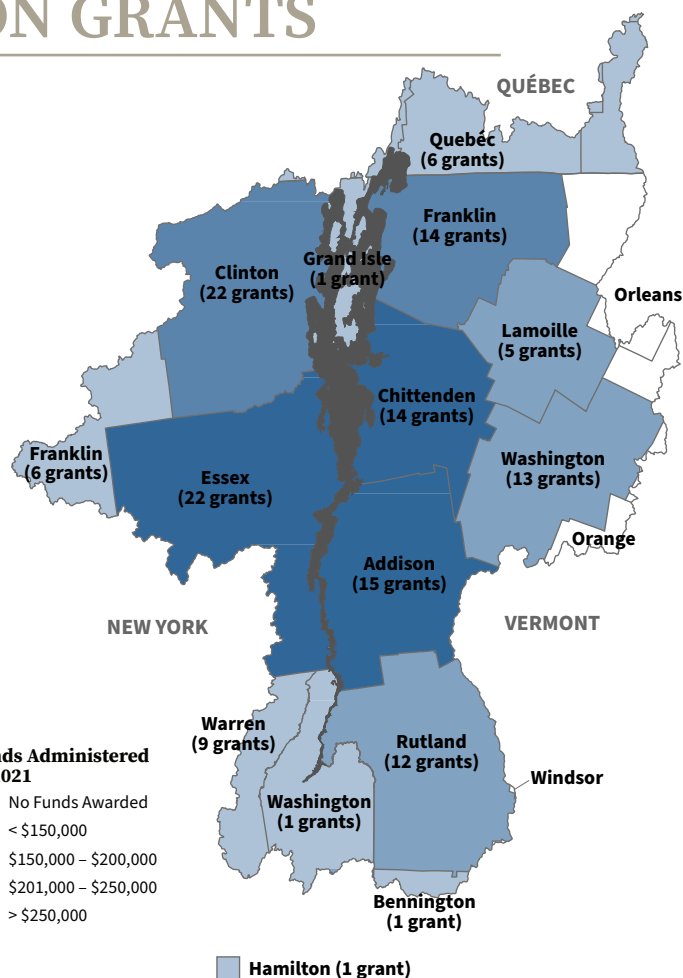
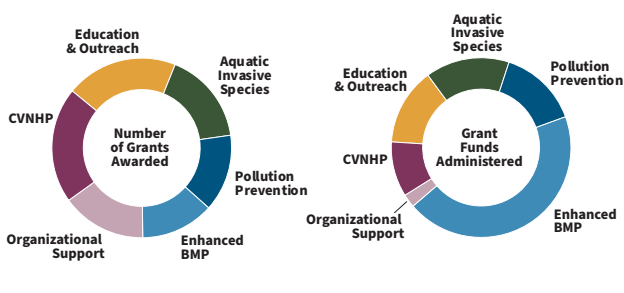
This summary of our work in FY2021 includes highlights of program staff work, local implementation grants, and larger technical grants. For a full listing of these projects, please visit lcbp.org/annual-report.



LOCAL IMPLEMENTATION GRANTS

LCBP's Local Grant Programs provide vital support for many of the tasks included in the Lake Champlain Management Plan [Opportunities for Action](#). The LCBP's core areas of work are addressed through grants awarded in several categories: Pollution Prevention and Habitat Conservation, Aquatic Invasive Species Spread Prevention, Education and Outreach, Organizational Support, and Cultural Heritage and Recreation. Since 1992, the LCBP has awarded more than 1,200 grants totalling more than \$9,000,000 to 350 organizations.

In 2021, the LCBP administered **\$2,625,121** for **142** local grants across **6** grant categories. Some of these grants are highlighted in the following pages. Learn more about other grants at lcbp.org/grants.



PROGRAM GRANTS

Each year, the LCBP supports a number of research and implementation projects. These larger projects provide data that inform and guide policy, management decisions, implementation practices, educational programming, and training opportunities. Projects in FY2021 included:

- Public Awareness Survey:** Researchers at the University of Vermont conducted a survey of public knowledge and engagement in Lake Champlain issues.
- Fish Mapping:** The Ausable River Association used environmental DNA (eDNA) to detect and map fish to help prioritize future stream habitat restoration projects and track progress of salmon restoration efforts.
- Tile Drains:** Stone Environmental, Inc. continued evaluation of nutrient outputs from agricultural tile drains and testing of a new in-ground phosphorus removal system.
- Wetlands:** Scientists at the University of Vermont analyzed the role of restored riparian wetlands in filtering phosphorus from runoff, helping to refine future restoration projects.



Ausable River Assn.



GOAL: Water in the Lake Champlain Basin's lakes, ponds, rivers, and streams that sustains diverse ecosystems, supports vibrant communities and working landscapes, and provides safe recreation opportunities.



LCBP

Program Highlights

In FY2021, LCBP staff:

- Collected critical data for scientific analyses and watershed management as part of the Long-term Water Quality and Biological Monitoring Program.
- Coordinated the work of the LCBP Technical Advisory Committee, which interprets scientific information and provides guidance on research and funding priorities.
- Authored a peer-reviewed article in the *Journal of Contemporary Water Resources and Education* that summarizes the development and accomplishments of the Lake Champlain Cyanobacteria Monitoring Program.
- Prepared for the first deployment of water quality monitoring buoys that will record and communicate data to stakeholders in real time.
- Developed a science blog to communicate project results to partners and research community.
- Coordinated review and approval of more than 20 new quality assurance project plans (QAPPs) to ensure consistent, high-quality environmental data.



LCBP

Local Grant Highlights

- Illicit Discharge Detection:** The City of Plattsburgh contracted to have 28 stormdrains assessed for presence of illegal wastewater inputs and likely sources.
- Green Stormwater Infrastructure:** The Lake Champlain Lake George Regional Planning Board contracted to develop GSI plans for the Village of Whitehall, NY.
- Transportation Stormwater Mitigation Projects:** The Northwest Regional Planning Commission prioritized and developed design plans for projects to reduce phosphorus inputs to Lake Champlain.
- Riparian Buffers:** The Intervale Center maintained and enhanced more than 32 acres of newly planted riparian forest buffer in the Otter Creek, Winooski, Lake Champlain Direct, Poultney, and Mettawee watersheds.



Intervale Center

HEALTHY ECOSYSTEMS



GOAL: Ecosystems that provide clean water for drinking and recreating, and intact habitat that is resilient to extreme events and free of aquatic invasive species where diverse fish and wildlife populations will flourish.



Program Highlights

In FY2021, LCBP staff:

- Worked with a stakeholder group to review alternative barrier options for Champlain Canal barrier feasibility study to prevent the spread of aquatic invasive species.
- Coordinated and participated in Vermont and New York dam task forces in efforts to increase river habitat connectivity.
- Surveyed 11,612 boaters and intercepted invasive species 892 times in summer 2021. Decontaminated 196 watercraft.
- Served in leadership positions with professional organizations and committees, including North American Lake Management Society, National Aquatic Nuisance Species Task Force, and regional Northeast Aquatic Nuisance Species Panel.



LCBP

Local Grant Highlights

- Zebra Mussel Impact:** The Lake Champlain Committee contracted for a survey of the impacts of invasive zebra mussels on native mussels in the Northeast Arm.
- Eurasian Watermilfoil:** The Upper Saranac Foundation removed EWM from Follensby Clear Pond, bringing the total amount of the invasive plant removed over a two-year period to more than 6.5 tons.
- River Steward:** The Ausable River Association River Steward provided aquatic invasive species spread prevention outreach at popular access points and at tourist points of entry to the region.
- Monkton Pond Boat Launch Steward:** The Lewis Creek Association established a new program that removed invasive species from 160 boats in 2021.



Lake Champlain Committee

THRIVING COMMUNITIES



GOAL: Communities have an appreciation and understanding of the Basin's natural and cultural resources, and the capacity to implement actions that will result in sound stewardship of resources while maintaining strong local economies.



NFCT

Program Highlights

In FY2021, LCBP/CVNHP staff:

- ✂ Hosted the online 2021 CVNHP International Summit Knowledge Cafés to develop budget priorities, outreach ideas, and partnership opportunities.
- ✂ Celebrated the 101st Anniversary of the 19th Amendment and woman suffrage with travelling interpretive exhibits.
- ✂ Coordinated and advanced the efforts of the Champlain-Adirondack Biosphere Network to connect people and organizations working to build harmonious relationships between people and the environment.
- ✂ Coordinated the activities of the Vermont and New York Citizen Advisory Committees.
- ✂ Provided support and coordination of technical workshops, data acquisition, and public outreach for the International Joint Commission's flood study of reducing water levels and flood vulnerability.
- ✂ Co-led efforts to develop programs and implement projects along the Western New England Greenway Trail.



LCBP

Local Grant Highlights

- ✂ **Vermont African American Heritage Trail:** The ALANA Community Organization/Vermont Partnership for Fairness & Diversity updated an AAHT brochure and included three new sites in New York.
- ✂ **Women at the Helm:** The Lake Champlain Maritime Museum developed a new online exhibit featuring female ferry captains, scientists, and community leaders on the Lake.
- ✂ **Missisquoi River Volunteers:** The Missisquoi River Basin Association enhanced community engagement and volunteer programs for collection of water quality data.
- ✂ **JEDI for Clean Water:** Friends of the Mad River enhanced the incorporation of justice, equity, diversity, and inclusion into its operations and programs.



Lake Champlain Maritime Museum

INFORMED AND INVOLVED PUBLIC



GOAL: Basin residents and visitors understand and appreciate Lake Champlain Basin resources, and will possess a sense of personal responsibility that results in behavioral changes and actions to reduce pollution.



LCBP

Program Highlights





In FY2021, LCBP staff:

-  Designed and produced the *2021 State of the Lake and Ecosystem Indicators Report* and developed accompanying web site.
-  Coordinated development of the Stream Wise Award Program to engage property owners in protecting vegetated stream buffers, increasing flood resiliency and benefiting water quality and natural habitat.
-  Greeted more than 13,000 visitors and hosted classes in a COVID-safe space at the LCBP Resource Room at ECHO, Leahy Center for Lake Champlain.
-  Hosted the virtual Lake Champlain Celebration of World Water Day, with 22 classrooms and more than 220 students and adults participating in the program.
-  Managed redesign, redevelopment, and update of content for the LCBP website.
-  Conducted outreach efforts at farmers markets, summer concerts, John Brown Farm, and Camp Ingalls.



LCBP

Local Grant Highlights

-  **Student Watershed Stewards:** Student interns with the Northern Forest Canoe Trail completed projects that improved public access and protected water quality on the Winooski, Mad, and Saranac Rivers.
-  **360-degree Video:** The Lake Champlain Land Trust completed two videos and purchased virtual reality display headsets that put the viewer at the center of panoramic views on the Lake Champlain shoreline.
-  **Mikinak Turtle Festival:** The Zoo de Granby in Québec offered a virtual festival and conducted outreach to boaters, riparian land owners, and municipal officials about the spiny softshell turtle and water quality.
-  **Watershed signage:** Champlain Watershed Coalition of New York and Up Yonda Farm installed an augmented reality sandbox model for watershed education.



Northern Forest Canoe Trail

ABOUT THE LCBP

The Lake Champlain Basin Program (LCBP) coordinates and funds efforts that 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 Lake Champlain Basin Program was created in 1992 at the recommendation of the Lake Champlain Management Conference. The Management Conference was a multi-jurisdictional effort led by the U.S. Environmental Protection Agency (US EPA) upon the signing of the Lake Champlain Special Designation Act, under Section 120 of the U.S. Clean Water Act on November 5, 1990. Sponsored by Senators Leahy and Jeffords from Vermont and Senators Moynihan and D'Amato from New York, this legislation designated Lake Champlain as a resource of national significance and required examination of water quality, fisheries, wildlife, recreational, and economic issues.

Before passage of the Act, natural resource managers faced the challenge of addressing specific problems requiring immediate action while also charting a comprehensive, integrated plan for the future of the Lake Champlain Basin. To address this challenge, the Lake Champlain Special Designation Act authorized funding through the US EPA to the States of Vermont and New York, and to NEIWPCC in support of the Lake Champlain Basin Program to work collaboratively toward achieving management goals outlined in *Opportunities for Action*, the management plan for Lake Champlain.

In FY 2021, the LCBP received federal funding from the U.S. Environmental Protection Agency, the Great Lakes Fishery Commission, the National Park Service, and the International Joint Commission. NEIWPCC—a regional commission that helps the states of the Northeast preserve and advance water quality—serves as the primary program administrator of LCBP at the request of the Lake Champlain Steering Committee, and administers the program's personnel and finances. LCBP is a program partner of NEIWPCC.



Lake Champlain Basin Program
54 West Shore Road
Grand Isle, VT 05458
(802) 372-3213
www.lcbp.org