



Lake Champlain, Charlotte

Since 1951, Vermont has coordinated its water-protection efforts with neighboring states through its membership in the New England Interstate Water Pollution Control Commission. Beginning in 1947, when Congress chartered NEIWPCC, the Commission has added states, staff, and programs such as the Lake Champlain Basin Program. We have long been the means by which our member states pull together to protect the region's water resources. NEIWPCC coordinates forums and events that encourage cooperation among the states, develops resources that foster progress on water issues, represents the region in matters of federal policy, trains environmental professionals, manages programs and grants, initiates and oversees scientific research, educates the public, and provides overall leadership in water management and protection. The Commission's representation of its member states to agencies and officials in Washington amplifies Vermont's voice on water-protection issues.

The agency is led by its seven member states (the six New England states and New York). State governors each appoint five of the Commission's thirty-five members. Vermont's delegation comprises the heads of the state's environmental and public-health agencies supplemented by three experienced individuals from inside and outside state government. As a member state, Vermont appropriates funds to support the Commission's work. In fiscal 2017 the combined contribution from our states was \$153,833 or 0.6 percent of the total monies directed to NEIWPCC during the year (\$25,949,094). While the majority of the Commission's funding, therefore, comes from other sources—primarily federal grants, state contracts, and fees generated by our training and certification programs—the dues paid by states are indispensable to NEIWPCC's ability to serve Vermont and the other member states. The following highlights are just a few of the achievements in 2017 that illustrate the significant return on Vermont's contribution to NEIWPCC.

**2017 Selected Highlights: Vermont**

**A** With Québécois assistance, the Lake Champlain Boat Launch Steward Program expanded into Canada during fiscal 2017. The stewards help to reduce the spread of aquatic invasive species by identifying high-risk boats for courtesy inspection and providing information about how to prevent the spread of invasive species. Invasive species, such as water chestnuts and zebra mussels, can clog recreational areas, obstruct waterways, and crowd out native plants and animals.



The addition of stewards at boat launches in Quebec benefits the entire lake. The stewards fill a gap to prevent further spread of aquatic invasive species from other regions of North America.

The Lake Champlain Basin Program supported the effort by providing training at the LCBP headquarters for two stewards and a supervisor assigned to monitor the Saint Armand and Venise-en-Québec boat launches on Missisquoi Bay. The stewards were employed by a Missisquoi Bay watershed group, with funding from the Great Lakes Fishery Commission. The LCBP staff also translated sandwich boards, t-shirts, and rack cards into French in preparation of the expansion.

The Lake Champlain Basin Program employed nine seasonal boat stewards in fiscal 2017: seven in Vermont and two in New York. They were supplemented by seventeen stewards employed by the Paul Smiths College Adirondack Watershed Institute with funding from a N.Y. state grant. LCBP stewards represent nearly 40% of the 28 seasonal stewards monitoring boat launches around the lake allowing for truly coordinated effort.

This year, LCBP stewards participated in several aquatic-invasive-species-removal events, including a two-day hand harvest of European frogbit (*Hydrocharis morsus-ranae*) hand harvest in the town of Charlotte during the month of July. They also partook in water chestnut (*Trapa natans*) pulls in St. Albans Bay.

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During the summer of 2017, stewards staffed the Vermont Department of Environmental Conservation's watercraft decontamination stations at Fish & Wildlife access sites in South Hero and Shelburne. These complimentary stations are essentially a high pressure, hot water boat bath. They are an important tool in the prevention of the spread of aquatic invasive species.

During the first ten years of the program, LCBP stewards surveyed almost 83,000 boats and spoke to more than 181,000 visitors about how to ensure that their boats and equipment are cleaned, drained, and dried.

**B** The Lake Champlain Basin Program offers a multitude of education and outreach opportunities in schools and communities around the lake and at the Lake Champlain Resource Room in the ECHO Leahy Center for Lake Champlain. Located on the top floor of ECHO's aquarium and science center, the Resource Room welcomed 31,609 visitors during the fiscal year, including individuals, families, students, and camp and tour groups.

The Resource Room features exhibits, computer stations, and hands-on activities. It offers an extensive library of lake and basin information, educator resources, and technical documents to assist visitors with investigation, research and curriculum planning. In addition to welcoming visitors, answering questions, and curating the special exhibits and year-round resources, NEIWPCC's LCBP staff hosted custom and introductory programs for nine student and youth groups and six adult professional groups.

Six professional groups visited the Resource Room for an introduction to lake and watershed issues, and to learn more about the LCBP and the Resource Room. Visitors included eight individuals from the Sea Grant national review team, a dozen members from the U.S.-China Partnership of the Vermont Law School, and ten U.S. Congressional staffers working for the minority members of the Senate Appropriations Committee.

**C** In Huntington, a \$20,000 grant from the Lake Champlain Basin Program will pay for the replacement of three culverts on Texas Hill Tributary. The new culverts will address repetitive storm failings that have caused substantial washouts, adding phosphorus and sediment to the stream. The new culverts will open three miles of brook trout habitat, provide access to more than ten acres of wetlands, and reduce sediment loading from culvert washouts.

The award, made to the Winooski Natural Resources Conservation District, was one of nine pollution-prevention grants from the LCBP to Vermont communities and institutions last year.

In fiscal 2017, the LCBP awarded seventy-one grants totaling \$690,103 for projects across the bi-state Lake Champlain basin. Forty-five of those totaling \$473,936 were awarded in Vermont. Funding areas for this past fiscal year included education and outreach (12 grants), organizational support (11), pollution prevention (9), aquatic invasive species (6), and Champlain Valley National Heritage Partnership (6) grants. Pollution prevention was largest category of grants distributed in Vermont in 2017, with \$203,455 distributed across the nine grantees.

Additional pollution prevention projects in the state of Vermont funded through the Lake Champlain Basin Program's local implementation grant program include building a bioretention garden on the campus of the University of Vermont

and several school and municipal storm-water-retention and mitigation projects. Other pollution prevention projects will protect and restore floodplain forests for wildlife and recreation, and provide additional funding for further research on floating treatment wetland performance in cold climate stormwater ponds.

**D** The City of Vergennes is the beneficiary of a sanitary-sewer-utility mapping project made possible by a \$49,786 grant from the Lake Champlain Basin Program. The LCBP gave the award under its new technical grants subcategory, created in fiscal 2017 to address increasing demand for funds to support the implementation of best management practices. The mapping-project funds awarded to the Watershed Consulting Associates aim to help the city reduce the occurrence of combined sewer overflows and to assist with stormwater master planning for city.

The LCBP distributed a total of \$729,955 in technical grants to ten municipalities, community organizations, and environmental consultancies in Vermont and New York. Of the \$504,010 awarded to enhance best management practices in Vermont, the LCBP awarded \$189,494 to Montpelier, South Burlington, and the Friends of Mad River to support best management practice in stormwater management.

Additionally, a second new category specifically supports alternative and innovative agricultural practices in the St. Albans Bay watershed. Two such grants awarded \$225,945, one to evaluate phosphorus removal via engineered ecosystems, and another to assist with optimizing farm-scale phosphorus management and watershed scale loading. The goal is to reduce phosphorus loading to, and cyanobacteria blooms in, St. Albans Bay in Lake Champlain.

**E** Last summer *Opportunities for Action*, the blueprint that has guided efforts to protect and improve the lake since 1996, was revised for a third time. Governor Phil Scott and other officials from Vermont, New York, and Québec signed the document on July 19 in a ceremony at Crown Point on the lake's New York shoreline. The plan seeks to meet four broad goals: clean water, healthy ecosystems, thriving communities, and an informed and involved public.

Since the previous version of *Opportunities for Action* was adopted in 2010, the Basin Program has awarded over \$13 million in grants. Many of these grants were augmented by other funds or programs. The grants include the following:

- \$2 million for aquatic invasive species outreach campaigns and to support work to prevent new invasions,
- close to \$5 million for monitoring and research programs on Lake Champlain and in its watershed,
- more than \$4 million for projects to reduce pollution from nutrients, sediment, and other contaminants from agriculture and from forested and developed lands.

Public education and outreach efforts during the same period included interacting with more than 140,000 visitors to the LCBP Resource Room at the ECHO Leahy Center for Lake Champlain in Burlington. Other officials at the Crown Point Ceremony included cabinet secretaries and other officials from Vermont, New York, and Québec. The then-acting Regional Administrators for EPA Regions 1 and 2, Deborah Szaro and Catherine McCabe, also attended the ceremony.

