

# OPPORTUNITIES FOR ACTION

---

*An Evolving Plan for the Future of the Lake Champlain Basin*

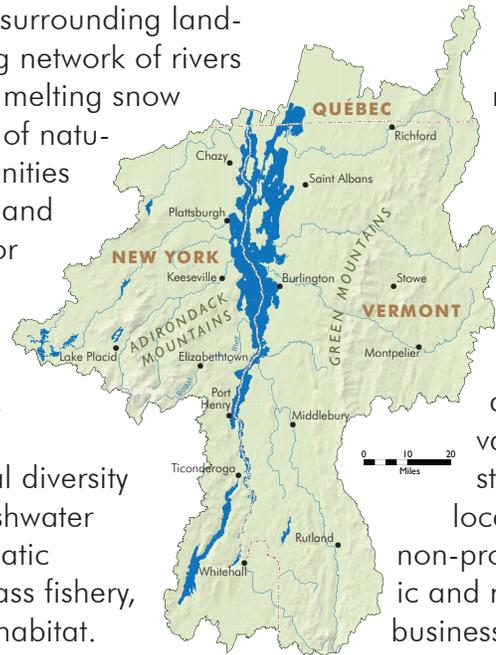
## Summary



**2017**

**R**inged by mountains and fertile lowlands, Lake Champlain is filled with water carried from the surrounding landscape by a far-reaching network of rivers and streams. Rain and melting snow flow from a patchwork of natural and human communities in Vermont, New York, and Québec. A dozen major tributaries collect this runoff to drain the 8,234 square-mile Lake Champlain Basin.

The watershed's natural diversity includes significant freshwater wetlands, complex aquatic ecosystems, a world class fishery, and abundant wildlife habitat. The Lake's natural resources and connectivity with other waterways have long made it an ideal location for



human settlement and trade. This rich cultural heritage contributes to the unique character that makes the Lake one of the region's most cherished resources.

While the Lake remains "Great" and the Basin is vibrant with bountiful natural and cultural assets, a number of environmental challenges demand attention. A wide variety of partners—federal, state and provincial agencies, local and regional government, non-profit organizations, academic and research institutions, the business community, and private individuals—work to improve water quality and ecosystem integrity in the Lake Champlain Basin.

---

**T**he Lake Champlain management plan, *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*, is intended to help coordinate the efforts of these diverse stakeholders. This summary document highlights the desired outcomes and priority task areas for each of the four goals that form the core of this

plan: Clean Water, Healthy Ecosystems, Thriving Communities, and an Informed and Involved Public. The full plan, which provides a comprehensive explanation of the objectives and strategies to achieve these goals, can be viewed and downloaded on the LCBP website ([www.lcbp.org](http://www.lcbp.org)).



# CLEAN WATER

**GOAL: Water in the Lake Champlain Basin's lakes, ponds, rivers, and streams will sustain diverse ecosystems, support vibrant communities and working landscapes, and provide safe recreation opportunities.**

*While the majority of Lake Champlain is usually in very good condition, the Lake is among the 20% of those in the United States that are impaired by excess nutrients, and among the nearly 50% of lakes with health advisories for fish consumption due to elevated mercury*

*concentrations. Emerging contaminants and pathogens from all types of land uses also impair water quality and ecosystem integrity. Sound science is the foundation for management actions that address these persistent challenges that remain in some portions of the Lake.*



## DESIRED OUTCOMES:

- » Eliminate or reduce the number of beach closings associated with harmful algal blooms and elevated bacteria counts.
- » Reduce the portion of Lake Champlain experiencing harmful algal bloom conditions at the High Alert level.
- » Decrease levels of toxic contaminants in tissue of sport fish.



## PRIORITY TASK AREAS

- » Increase accessibility of environmental data on Lake Champlain.
- » Maintain the Lake Champlain Long-Term Monitoring program.
- » Increase understanding of factors affecting performance and efficiency of best management practices.
- » Expand sub-watershed monitoring to inform targeted watershed objectives.
- » Fund programs to protect or enhance river corridors for nutrient reduction and flood resilience.
- » Understand emerging contaminants and points of control.
- » Fund monitoring programs to inform fish consumption advisories.



# 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.**

*The Lake Champlain Basin is a large ecosystem with an abundance and rich diversity of native fish, wildlife, and plants. These species occupy a mosaic of interconnected aquatic and terrestrial habitats, including broad open waters, tributaries, wetlands, forests, agricultural*

*lands, and other areas. The structure, function, and balance of the food web is closely connected to land use and human health. Healthy ecosystems provide invaluable water quality services such as nutrient filtration, flood resilience, and sediment retention.*



## DESIRED OUTCOMES:

- » Identify threats to species of concern from climate change.
- » Develop comprehensive strategies for habitat protection and restoration in priority sub-watersheds of the Basin.
- » Increase aquatic invasive species (AIS) spread prevention awareness and prevent new invasions.
- » Reduce the extent of invasive water chestnut in Lake Champlain.



## PRIORITY TASK AREAS

- » Support programs to protect river corridors and lake shorelands.
- » Support research to identify vulnerable lands for conservation.
- » Support research to better understand food web dynamics.
- » Conduct and coordinate AIS monitoring.
- » Provide support for rapid response to AIS introductions.
- » Intercept AIS transportation on watercraft and equipment.
- » Support implementation of AIS barriers on the Champlain and Chambly canals.
- » Support programs that improve AIS spread prevention behaviors.





# THRIVING COMMUNITIES

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

*The history of many communities within the Basin is inextricably tied to Lake Champlain and its tributaries. Citizens who gain an understanding of this heritage and recreate on these waterways develop personal connections with the landscape, increasing*

*stewardship and supporting local economies. The business community and watershed and civic organizations further strengthen these bonds by implementing lake-friendly practices and engaging local citizens in critical work to improve water quality and ecosystem integrity.*



## DESIRED OUTCOMES:

- » Management partners and members of the public who are informed about watershed issues and take actions to improve Lake conditions.
- » Increased citizen understanding of publicly funded projects that are implemented to clean up and protect the Lake.



## PRIORITY TASK AREAS

- » Provide financial and technical assistance to local organizations.
- » Assist with facilitation of public meetings to inform the public about new legislation, programs, and initiatives.
- » Implement recognition programs for businesses and producers who employ best management practices to protect water quality.
- » Support professional development among Champlain Valley National Heritage Partnership (CVNHP) stakeholders.
- » Support initiatives that promote sustainable recreational activities that feature the natural and cultural resources of the CVNHP.
- » Support a public information program that emphasizes recreational ethics, public safety, sustainable use, and stewardship of resources.



# INFORMED & INVOLVED PUBLIC

**GOAL: Basin residents and visitors will 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.**

*The future of the Basin rests in the hands of its citizens and leaders. A public that understands the Basin's water quality and resource management challenges and their possible solutions can make informed choices about protection and restoration. Informing citizens about*

*how to change behaviors and providing opportunities to get involved are critical to reducing human impacts on Lake Champlain. Formal education programs, general outreach initiatives, and digital and print media help to interpret issues for the public and stakeholders.*



## DESIRED OUTCOMES:

- » Members of the public who are informed about watershed issues and are more likely to take actions that improve Lake conditions.
- » Citizens support publicly funded projects to clean up and protect the Lake.



## PRIORITY TASK AREAS

- » Deliver classroom and field-based instruction that increases knowledge of watershed science among K-12 students.
- » Deliver instruction in watershed education for K-12 teachers through the Champlain Basin Education Initiative and other workshops.
- » Publish the *State of the Lake and Ecosystem Indicators Report* every three years.
- » Connect, promote, and improve cultural and natural heritage sites through resource interpretation.
- » Interpret watershed issues for members of the public at the LCBP Resource Room at ECHO Leahy Center for Lake Champlain and at other events and outlets.

The 1990 Lake Champlain Special Designation Act identified Lake Champlain as a resource of national significance. The Act was sponsored by Senators Leahy and Jeffords from Vermont and Senators Moynihan and D'Amato from New York. The Act's goal was to bring together people with diverse interests in the Lake to create a comprehensive pollution prevention, control, and restoration plan for protecting the future of the Lake Champlain Basin. This legislation also created the Lake Champlain Basin Program (LCBP) to coordinate and implement the plan.



*Opportunities for Action* is a tool for the Lake Champlain Steering Committee, which serves as forum for information exchange and a mechanism to coordinate state and provincial policies and programs.

The plan is a strategic planning guide that will inform management decisions over the next several years. The 2017 version of the plan is its fourth iteration. Conditions and issues have changed since the plan was first endorsed in 1996, and progress has been made in many areas. Priorities for action have evolved to reflect the dynamic nature of human interactions in a complex ecosystem.



As the LCBP's guiding document, the plan defines the Program's key functions: coordinate programs and implementation activities; support local level implementation and involve the public; measure and

monitor success relative to benchmarks; promote and advise partner communications; secure and direct funding; conduct sound research; and regularly update plan recommendations. These functions inform the priority task areas for each goal.

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

The Lake Champlain Steering Committee guides the LCBP's work. Its members includes staff representing state and provincial government in Vermont, New York, and Québec, local government representatives, Citizen Advisory Committee Chairs, the Technical Advisory Committee Chair, the Heritage Area Program Advisory Committee Chair, the Education and Outreach Advisory Committee Chair, several U.S. federal agency representatives, and a Lake Champlain Sea Grant representative.

The LCBP receives funding from the U.S. Environmental Protection Agency, the Great Lakes Fishery Commission, and the National Park Service. The New England Interstate Water Pollution Control Commission (NEIWPC) manages the financial, contractual, and human resource business operations on behalf of the Lake Champlain Steering Committee. LCBP staff are employees of NEIWPC.

**Visit [www.lcbp.org](http://www.lcbp.org) to view the full version of *Opportunities for Action*.**



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

