

OPPORTUNITIES FOR ACTION

An Evolving Plan for the Future of the Lake Champlain Basin



*A Special Report on the
2001 Draft Plan Update*

WHAT'S INSIDE...

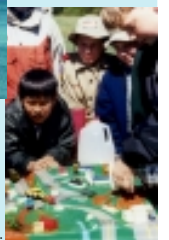
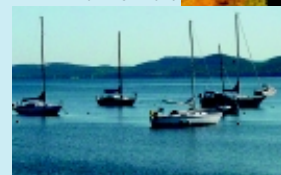
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Are You in Lake Champlain's Basin?



OPPORTUNITIES FOR ACTION IS FOR OUR...



If you're on this map, you're in the Basin!

Spanning 8,234 square miles, the Basin or watershed extends from the Adirondack High Peaks to the Green Mountains. This area collects precipitation and, unfortunately, pollutants from the land which flow to the Lake in hundreds of rivers and streams. That's why we must address all lands and waters of the entire Basin when protecting Lake Champlain. So whether you are on the shore or in the mountains, please remember that your actions can help or harm Lake Champlain.

Lake Champlain Steering Committee

- **C. Randall Beach**
Plattsburgh, NY - Empire State Development
- **Tamsen Benjamin**
Montpelier, VT - VT Agency of Transportation
- **Gerard Boutin**
Saint-Hyacinthe, Quebec - Minister de l'Agriculture, des Pêcheries et de l'Alimentation
- **Stuart Buchanan**
Ray Brook, NY - NYS Dept. of Environmental Conservation
- **Peter Clavelle**
Burlington, VT - Mayor
- **Scott Collins**
Albany, NY - NYS Dept. of Agriculture & Markets
- **Canute Dalmasse**
Waterbury, VT - VT Agency of Natural Resources
- **Mario Del Vicario**
New York, NY - US Environmental Protection Agency, Region 2
- **Leon Graves**
Montpelier, VT - VT Dept. of Agriculture
- **Buzz Hoerr**
Colchester, VT - VT Citizens Advisory Committee
- **Fran Keeler**
Winooski, VT - US Dept. of Agriculture, NRCS
- **Ron Manfredonia**
Boston, MA - US Environmental Protection Agency, New England
- **Gerard Masse**
Longueuil, Quebec - Societe de la Faune et des Parcs
- **Kenneth Miller**
St. George-de-Clarenceville, Quebec - Quebec Citizens Advisory Committee
- **Ronald Ofner**
Crown Point, NY Citizens Advisory Committee
- **Robert Reinhardt**
Albany, NY - NYS Office of Parks, Recreation, & Historic Preservation
- **Jean Rivet**
Longueuil, Quebec - Minister de L'Environnement
- **Dave Tilton**
Essex Junction, VT - US Dept. of Interior, FWS
- **Emily Wadhams**
Montpelier, VT - VT Agency of Commerce & Community Development
- **Mary Watzin**
Burlington, VT - University of Vermont

Dear Friend of Lake Champlain,

The Lake Champlain Basin Program (LCBP) is pleased to present the draft update of *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin* for public comment. This "Special Report on the 2001 Draft Plan Update" highlights the draft plan update and invites your comments. The complete text is available at www.lcbp.org or by contacting the LCBP.

When *Opportunities for Action* was approved in 1996, the Lake Champlain Management Conference recommended that the plan be periodically revised to keep it current with the Basin's changing environment and new scientific knowledge. This draft plan update is the first revision of the plan, and it follows the first five years of plan implementation. It is the result of input from the LCBP's technical committees, public comments and new scientific knowledge about the Lake and its Basin. A survey of Basin residents was also conducted over the summer to provide additional public input into the planning process.



Gary Rendorf

The highest priorities of the original plan remain unchanged; reducing phosphorus, preventing toxic substances and managing aquatic nuisance species are still the highest priorities for action. However, we believe that protecting human health in the Basin now needs to be ranked as a highest priority, especially in view of the frequency of bacterial contamination in the Lake. The plan update incorporates these priorities with emerging Basin issues, such as water quality problems associated with growth and development, and new aquatic nuisance species threats. It also highlights key accomplishments during the first five years of implementation, such as the clean-up of Cumberland Bay, which was completed in 2000.

A clean Lake Champlain is vitally important to everyone, economically, ecologically and culturally. On behalf of the Lake Champlain Steering Committee and the LCBP's partners in New York, Vermont and Quebec, I welcome your input on the draft update and I also encourage you to participate in a public meeting during October (schedule on page 8).

Sincerely,

Bill Howland
LCBP Manager

WHAT IS THE OPPORTUNITIES FOR ACTION 2001 UPDATE?



Opportunities for Action is a management plan for the Lake Champlain Basin. The first plan was endorsed in October 1996 by the governors of New York and Vermont and by the US EPA. It called for periodic updates and 2001 marks

the first revision of the plan. The main goals of the plan continue to be:

- Improving water quality throughout the Lake Champlain Basin.
- Protecting the Basin's living natural resources.
- Preserving and enhancing the region's rich cultural and recreation resources.

Following a period of public review and comment, the plan will be finalized and presented to New York, Vermont and Quebec officials for signature.

This "Special Report" highlights some of the plan's key actions. Actions new to the 2001 update are marked with an asterisk symbol (*), instead of a bullet (●). The plan update's complete text is available from the LCBP or on www.lcbp.org.

WHAT IS THE LAKE CHAMPLAIN BASIN PROGRAM?

The Lake Champlain Basin Program (LCBP) is a partnership among the States of New York and Vermont, the Province of Quebec, the US Environmental



The LCBP's main office is based in Grand Isle, VT.

Protection Agency (US EPA), other federal and local government agencies, and many local groups, both public and private. Created by Congress through the Lake Champlain Special

Designation Act of 1990 (Public Law 101-596), the LCBP's goal is to work cooperatively to protect and enhance the environmental integrity and the social and economic benefits of the Lake Champlain Basin. The Lake Champlain Steering Committee leads the LCBP (list above). Its members include local, state, and federal government representatives, and the chair persons of advisory groups representing citizens, scientists and educators. The Steering Committee's actions are guided by *Opportunities for Action*.

HOW IS THE PLAN IMPLEMENTATION FUNDED?



From 1996-2001, the LCBP used funds from six federal agencies to implement the plan, reflecting the continuing concerted efforts of the U.S. Congressional delegation from Vermont and New York. State funds from both New York and Vermont were also directed to many projects including wastewater treatment plant upgrades and agricultural pollution prevention projects. The Governors and state legislatures have provided consistent support for the implementation of *Opportunities for Action*. Quebec projects received provincial funding, especially through the Quebec Ministry of Environment. Many private and non-profit or organizations have also funded local actions to improve Lake Champlain.

This document was produced under US EPA grant #991923-01.

Design: Nicole Ballinger, LCBP

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REDUCING PHOSPHORUS IN LAKE CHAMPLAIN

GOAL Reduce phosphorus inputs to Lake Champlain to promote a healthy and diverse ecosystem and provide for sustainable human use and enjoyment of the Lake.

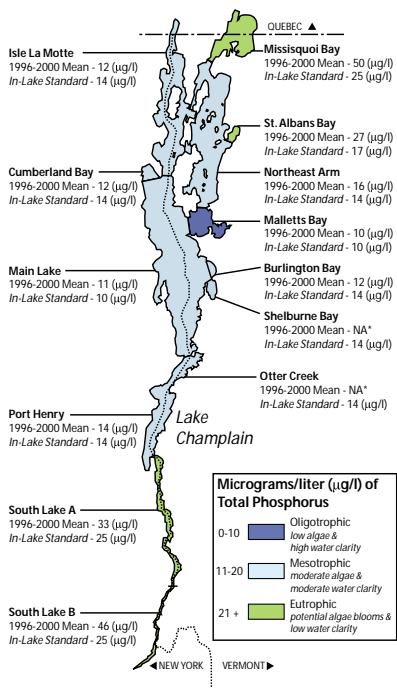
Phosphorus is the nutrient that, in excessive concentrations, poses the greatest threat to water quality and human use and enjoyment of Lake Champlain. The LCBP and its partners in New York, Vermont and Quebec have established more than ten actions in the *Opportunities for Action* plan to reduce annual phosphorus loads and to achieve in-lake water quality standards established for each Lake segment. Some key action examples are described below.

KEY ACTIONS:

*** Coordinate with TMDL (Total Maximum Daily Load) policies now being developed in both New York and Vermont.**

A TMDL is the maximum amount of a single pollutant from all contributing sources that a water body can receive and still meet water quality standards, as established by the Federal Clean Water Quality Act. The LCBP will work with the states and communities to implement the TMDL for Lake Champlain.

Phosphorus by Lake Segment (1996-2000 Mean) and In-Lake Water Quality Standards



*** Determine the actions necessary to achieve the phosphorus load reductions on an accelerated schedule.** The LCBP and its partners are aggressively determining the technical and funding challenges to accelerate the phosphorus reduction timeframe from 2016 to 2009, the 400th anniversary of Samuel de Champlain's arrival on the Lake.

*** Decrease phosphorus runoff from developed land, including urban and suburban land and roads.**

A 2000 LCBP study of phosphorus in the Basin suggests that new urban and suburban land uses may be offsetting some of the gains achieved by point source reductions (such as wastewater treatment plant upgrades) and agricultural nonpoint source reduction efforts. As a result, key actions include:

- increasing efforts to reduce phosphorus runoff from new development
- implementing retrofitted stormwater management systems
- implementing erosion and sediment controls for construction
- encouraging nutrient management on commercial and residential properties.

● Expand agricultural nonpoint source phosphorus control programs.

Farmers are often those most close to the Basin's natural resources; however, the difficult and ever changing nature of the farm economy can make on-farm stewardship of clean water a struggle. Therefore, the on-farm nonpoint source control programs continue to be a high priority including: continuing cost-share funds to implement best management practices; and seeking new funding sources for agricultural cost-share projects.

What is Phosphorus?

Phosphorus is a nutrient essential for plant growth. It is found in lawn fertilizers and manure. However, too much phosphorus in water causes algal blooms and excessive aquatic plant growth. These plants, and the water quality problems that occur when they decompose, can harm fish and other organisms and limit human use of the Lake.

Unlike most lakes, Lake Champlain is easily divided into several distinct lake segments. Each segment has a different level of phosphorus, which determines that segment's trophic level (water clarity and amount of plant growth). Each segment also has its own 20-year phosphorus reduction goal, established in the plan, *Opportunities for Action*.

About 20% of the phosphorus in Lake Champlain comes from point sources, such as wastewater treatment discharges. Runoff from roads and developed areas, and from lawns, farmlands and other rural areas (called nonpoint sources) supplies 80% of the phosphorus. Reducing lawn and garden fertilizer use and preventing stream bank erosion reduces phosphorus in the Lake.



This new LCBP poster helps inform the public about preventing phosphorus runoff from lawn and garden fertilizers



Dairy cows cross a bridge built to reduce nonpoint source runoff to Godin Brook on the Shaaron Farm in Vermont.

ACCOMPLISHMENTS

Phosphorus Reduction on Track:

By the end of 2001, phosphorus loads to the Lake will have been reduced by about 38.8 mt/yr (metric tons/year), far exceeding the five-year target of 15.8 mt/yr. However, to meet the long-term goal of the plan, existing and new pollution sources from development will need to be better managed.

Wastewater Treatment Plant Upgrades:

Since 1996, over \$28 million has been spent in the Lake Champlain Basin to upgrade phosphorus removal technologies.

*** Expand streambank restoration and planting programs along the Lake's tributaries.**

Vegetated areas along rivers and streams clean and filter water, prevent erosion and provide wildlife habitat. Actions in the plan to expand vegetated areas include: supporting programs for voluntary restorations; implementing protection programs in Quebec; increasing stream buffer training for municipal officials, landscape architects and others; and identifying additional funding for restoration programs.

NOTE:

* = new action for 2001

● = action continued from 1996

MANAGING & PREVENTING THE SPREAD OF NONNATIVE AQUATIC NUISANCE SPECIES

GOAL Control the introduction, spread and impacts of nonnative aquatic nuisance species in order to preserve the integrity of the Lake Champlain ecosystem.

Aquatic nuisance species, such as zebra mussels, sea lamprey, water chestnut, and Eurasian watermilfoil pose serious threats to native fish and wildlife populations and impede recreational activities. The *Opportunities for Action* plan has established more than 10 actions to control the introduction, spread and impacts of these species. A selection of those actions is described below.

KEY ACTIONS:

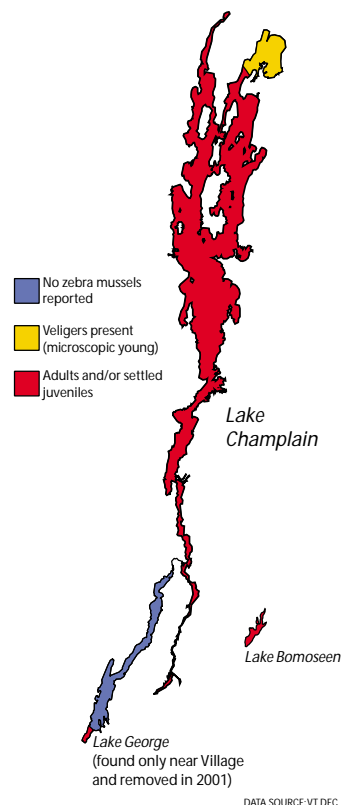
● **Prevent the spread and improve control of water chestnut in Lake Champlain and elsewhere in the Basin.**

The LCBP will continue to support water chestnut control programs, coordinated by the Vermont DEC, NYS Canal Corporation, and NYS DEC in the South Lake. Quebec is aggressively controlling the new infestation found on the South River in 1999.

● **Evaluate and demonstrate zebra mussel controls and impacts.**

Although zebra mussels have unfortunately spread throughout nearly all of Lake Champlain and to some inland lakes, there are ways to lessen their impact, such as anti-fouling boat treatments. New studies will determine their impact on the Lake's important underwater shipwrecks.

Zebra Mussels in the Lake Champlain Basin - 2000



A lake trout showing scars from sea lamprey.

● **Support the implementation of a long-term sea lamprey control program.**

The Supplemental Environmental Impact Statement for the Sea Lamprey Control Program will guide the lamprey control program in the Basin. The LCBP and its partners will support lamprey controls, which include lampricide applications, barrier dams, trapping, and other potential control technologies.

* **Prevent the spread of alewives.**

In 1997, alewives, a nonnative fish, were found in Lake St. Catherine (VT), which is connected to Lake Champlain. Alewives can drastically impact a lake's food web and displace native fish species. Following careful study, the Vermont Fish and Wildlife Department is determining the best management strategy to use in order to limit the impact of alewives in the Lake Champlain Basin.

What is a Nonnative Aquatic Nuisance Species?

Nonnative aquatic nuisance species are pesky plants and animals introduced from other parts of the world. At least 22 of these species are known to occur in the Basin. When they establish themselves in Lake Champlain, they can displace native species, impede recreation and may cause substantial economic impacts. The states, the US Fish and Wildlife Service and many local groups control and manage the Lake's nuisance species. In 1999, the New York and Vermont governors approved an aquatic nuisance species plan for Lake Champlain to guide management and control actions.

Humans spread nuisance species! They attach to our boats get accidentally introduced as bait, and are sometimes even intentionally brought here. You can help stop aquatic nuisance species from spreading by carefully washing and inspecting your boat and never disposing of baitfish into a water body.



Alewife

NOTE:

- * = new action for 2001
- = action continued from 1996

ACCOMPLISHMENTS

Controlling Water Chestnuts in Quebec: The Quebec Ministry of Environment has pledged to work with municipalities and local groups to control the water chestnut infestation in the South River. In 2001, Ducks Unlimited and the Quebec Ministry of Environment contributed \$250,000 toward water chestnut control.

Mechanical Harvesting: Five years of consistent funding from multiple sources have reduced the extent of the Lake's water chestnut population by 40 miles from Fields Bay to Benson, VT. Only hand-pulling controls are now needed north of Benson, instead of mechanical harvesting.



Volunteers for The Nature Conservancy have pulled hundreds of tons of water chestnuts to prevent the plant's spread. In 2000 alone, 55 tons were pulled!

MANAGING FISH AND WILDLIFE

GOAL Restore and maintain a healthy and diverse community of fish and wildlife for the people of the Lake Champlain Basin.

Fish and wildlife provide tremendous social, economic and environmental benefits to the Basin. For example, in 1997 people spent over \$204 million on fishing-related expenses in the Lake Champlain Basin. Bird and other wildlife viewing activities generate over \$50 million each year in Vermont alone. Several actions in the plan benefit fish and wildlife by focusing on habitat protection and ecosystem management, including those described below.

KEY ACTIONS:

● **Identify, restore and maintain critical habitats.**

This action promotes non-regulatory activities with willing landowners and public land managers. Activities include: identifying rare habitats; initiating an outreach program for landowners interested in habitat protection and restoration; restoring degraded habitats; removing dams if found to be biologically feasible and socially acceptable; exploring tax incentives for land uses beneficial to wildlife; and encouraging landscaping which promotes wildlife habitat.

● **Use biological indicators to monitor ecosystem change.**

Biological, or ecosystem, indicators are measurable characteristics of the ecosystem that reveal changes in its condition over time. This action will develop a set of indicators for the Basin, which will be used to track and report progress towards management goals.

NOTE:

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NYSDEC

LCBP funding helped build a new overlook at the Au Sable Marsh Wildlife Management Area in New York.

ACCOMPLISHMENTS

Restoring Wetlands:

Since 1993, more than 500 acres of wetlands which had been previously drained for agricultural and other land uses, have been restored.

Protecting and Restoring Habitat:

Since 1991, the US Fish and Wildlife Service has restored 763 acres of wetlands, 515 acres of land-based habitat, and 72.3 river miles in the Basin.



Colleen Hickey

A father and daughter show off a great catch at Vermont Fish & Wildlife's Kid's Fishing Day.

* **Develop ways to manage native species that become nuisances.**

Even native species can become nuisances. For example, the double-crested cormorant population is at an historic high which conflicts with other fish and wildlife management objectives and human enjoyment of the Lake. The plan calls for actions to identify conflicts and minimize them.



Double-crested cormorant.

ACCOMPLISHMENTS

Osprey Comeback:

During 2000, 79 ospreys nested in the Lake Champlain Basin, whereas a decade ago, only 2 nests and 3 young were counted. The LCBP funded 33 nest platforms in 1999.

Common Tern Protection:

On Popasquash and Rock Islands, Green Mountain Audubon biologists have banded, tracked and counted nests and fledglings. Biologists have also installed shelters called "common tern condos" to protect the terns from nest predators.



Mark LaBar

Osprey populations have recently made a comeback in the Lake Champlain Basin.

RESTORING AND PROTECTING WETLANDS, STREAMS AND RIPARIAN AREAS

GOAL Protect, conserve and restore Lake Champlain Basin wetlands, streams and riparian habitats and the functions and values they provide.

The Basin's 300,000 acres of wetlands provide habitat for birds, mammals, fish, and amphibians, and are resting spots for migratory birds. They also clean the water and reduce flooding by slowing the flow of water. Since colonial settlement, an estimated 50% of the Basin's wetlands have been lost to development and draining. Streams and riparian areas (the stream bank and adjacent land) are also important for water quality protection and wildlife habitat. Several actions are identified in *Opportunities for Action* to protect and restore these vital areas, including the examples below.

KEY ACTIONS:

● **Continue the Wetlands Acquisition Strategy and Expand Restoration Efforts.**

Since 1994, the Wetlands Acquisition Strategy has purchased over 4,000 acres of wetlands from willing landowners. This program, led by The Nature Conservancy, will eventually protect 9,000 wetland acres. Restoration efforts will provide cost-share funds and technical assistance to landowners for restoring wetlands.

* **Encourage local governments to implement 'Best Management Practices' (BMPs) for new development.**

To offset pollution from new development, the LCBP will work with local governments to implement BMPs. Potential BMPs include improving stormwater management, emphasizing erosion hazards, protecting habitat, employing growth management options, and promoting innovative site design to reduce pavement and other impervious surfaces.



MRBA

Volunteers from the Missisquoi River Basin Association plant trees to restore a streambank.

● **Develop incentives for municipalities and private landowners to restore, enhance and maintain wetlands and stream corridors.**

This action will establish a task force to find ways to reduce the financial burden for landowners that practice habitat conservation on their property.

PREVENTING POLLUTION FROM TOXIC SUBSTANCES

GOAL Reduce toxic contamination to protect public health and the Lake Champlain ecosystem.

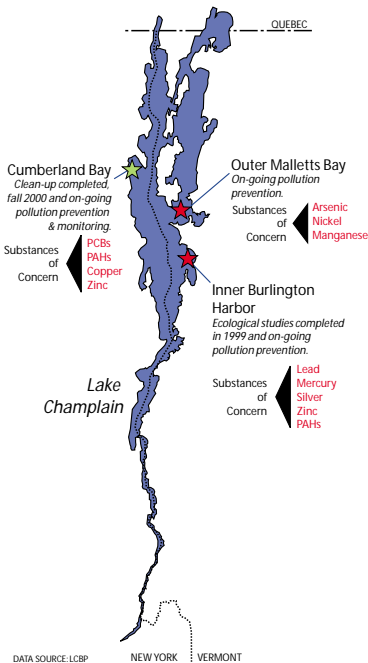
Toxic substances in the Lake have prompted fish consumption advisories and raised concerns about potential impacts on the Lake ecosystem, drinking water and other Lake uses. Several actions in the *Opportunities for Action* plan focus on preventing pollution from toxic substances, including the selection described below.

KEY ACTIONS:

● **Develop a comprehensive toxic substance management strategy that also focuses on pollution prevention.**

Actions focus on restoring contaminated sites while also implementing a pollution prevention strategy. Preventing pollution and recycling is cleaner, safer and more cost effective than cleaning it up. Actions specifically recommend implementing low cost/low technology pollution prevention, creating incentives for businesses and citizens to reduce toxic substances at their source, and working with stakeholders to revise the list of toxic substances of concern as new data becomes available.

Sites of Concern and Clean-up Actions



NYSDEC



The Cumberland Bay clean up removed 140,000 tons of PCB-contaminated sludge from the Bay.

● **Continue restoring and monitoring sites of concern.**

A significant accomplishment since 1996 is the clean-up of Cumberland Bay; however, long-term monitoring will continue at the site. For the remaining sites, scientists will continue to monitor, evaluate the extent of contamination, and recommend restoration alternatives, such as dredging, or containment.

* **Redevelop contaminated sites.**

Many contaminated sites, known as brownfields, are located in important areas of communities, such as town centers. This action will encourage and assist municipalities and businesses to transform brownfields into community assets.



PROTECTING HUMAN HEALTH

GOAL Minimize the risks to humans from water-related health hazards in the Lake Champlain Basin.

Potential water-related human health risks include: accidental ingestion of pathogens (viruses, bacteria and parasites) from swimming or drinking contaminated water, ingesting toxins sometimes produced by blue-green algae, and eating contaminated fish and wildlife. *Opportunities for Action* includes several actions to protect human health, including the following.

KEY ACTIONS:

● **Communicate health risks to the public.**

This action coordinates information about fish advisories, beach closings and blue-green algae toxins through a public outreach effort throughout the Basin.

* **Inform the public about conditions that support blue-green algae blooms.**

Warm surface waters and calm winds can create favorable conditions for blue-green algae blooms that sometimes produce toxins. This action will assess bloom locations and inform the public when risks develop.

What are Toxic Substances?

Toxic substances are chemicals that can harm plants and animals, including humans. Typically they collect in sediments

found on the bottom of lakes. In general, Lake Champlain has low concentrations of toxic substances in sediments. However, LCBP studies have identified three sites of concern: Cumberland Bay, Inner Burlington Harbor and Outer Malletts Bay. Mercury and polychlorinated biphenyls (PCBs) are present at low levels throughout the Lake and have accumulated in the tissues of several fish species, prompting

Quebec, Vermont and New York to post fish consumption advisories. Visit www.lcbp.org for more information on toxins and fish advisories.

ACCOMPLISHMENTS

Cumberland Bay Clean-Up:

Led by the NYS Department of Environmental Conservation, this \$35 million clean up removed PCB contaminated sediments and restored wetlands and beaches.

Preventing Mercury Pollution:

Over 75 lbs. of mercury have been collected through LCBP-funded programs at dental offices (by the National Wildlife Federation) and farms (by the NW VT Solid Waste Management District). In addition, Vermont collected 100 lbs. through its thermometer swap and 600 lbs. from schools.

ACCOMPLISHMENTS

Tracking Bacterial Sources:

With the US EPA's help, Colchester and Winooski are using *E. coli* monitoring and DNA tracking to link bacteria samples from streams and beaches with species in the watershed such as humans, dogs and cows. Results will guide pollution prevention by better identifying sources.

Eco-Info on the Web:

Burlingtonecoinfo.net informs the public about water and air health issues by posting beach closings, UV indexes and ozone forecasts.



Nicole Baillinger

The City of Burlington has posted a recommendation not to swim at Blanchard Beach because of high bacteria levels in the water.

NOTE:

* = new action for 2001

● = action continued from 1996

MANAGING RECREATION RESOURCES

GOAL Manage Lake Champlain, its shorelines and its tributaries for a diversity of recreational uses while protecting its natural and cultural resources.

Swimming, boating, fishing, bicycling, or simply viewing the Lake from a favorite spot is how many people experience and value Lake Champlain. If decreasing water quality, aquatic nuisance species, or lack of public access conflict with this enjoyment, tourism dollars and lake stewardship would likely decline. *Opportunities for Action* has established ten actions to manage recreation resources and maintain the connection between the enjoyment and stewardship of the Lake. A selection is described below.



Nicole Ballinger

ACCOMPLISHMENTS

Lake Champlain Bikeways:

Lake Champlain Bikeways' interpretive theme loops currently total 1,100 miles, including the 350-mile Champlain Bikeway around the Lake. New border signs link the loop across the international border with Quebec and eight new maps are available from www.champlainbikeways.org.

Lake Champlain Birding Trail:

A new free map lists 100 bird watching sites in New York and Vermont. Interpretive signs for the sites are coming soon! For more information, visit www.lakechamplainbirding.org.

KEY ACTIONS:

● Encourage new opportunities for recreation.

The Basin's natural resources provide abundant opportunities for low-impact recreation. Actions to further promote sustainable tourism include: developing natural and cultural heritage interpretive trails; continuing eco-tourism efforts, such as the Lake Champlain Committee's Paddlers' Trail, Lake Champlain Bikeways, and the Birding Trail; expanding the Underwater Historic Preserve System; and promoting an improved NY-VT fishing license agreement.

● Develop new public access opportunities.

New York and Vermont will cooperatively develop and maintain public access to the Lake through purchases from willing sellers, public-private partnerships, easements, and land trusts.

● Monitor recreational use impacts in ecologically sensitive areas.

With increased tourism and recreational use, even non-consumptive recreation can negatively impact sensitive areas. This action develops a monitoring program to provide early warning of impacts.



Chapin Spencer

Thanks to the group Local Motion, a bike ferry across the Winooski River links the Burlington and Colchester Bikeways, making possible a 13-mile off road route along beautiful Lake Champlain.

CULTURAL HERITAGE RESOURCES

GOAL To identify, preserve and protect the irreplaceable cultural heritage resources of the Champlain Basin for the public benefit, now and for generations to come, and to promote an appreciation of their value as a vital aspect of the Basin's economic and community life.

The Basin's cultural heritage spans over 10,000 years, and Lake Champlain has been called North America's most historic lake. Several actions in the plan, including those described below, protect cultural heritage resources which link the present with the past, provide a continuing sense of place, and stimulate local economies that rely on heritage resources.

KEY ACTIONS:

● Link heritage sites with economic development.

Actions include: gathering data about tourism and revenue associated with cultural heritage sites; linking cultural heritage to existing recreation and tourism marketing; and helping communities secure funding for economic development/heritage resource protection.

● Develop and promote a network of locally planned, approved and managed heritage trails.

Heritage trails can stimulate local economies by linking tourism with heritage sites and local shops and services. The LCBP and its partners work with municipalities, businesses, tourism offices, and others to promote locally organized and managed networks.



Deb Sachs

Viewing a new wayside exhibit along the Burlington, VT Heritage Trail.

● Manage the Lake's underwater cultural heritage resources.

The Lake's 300 or so underwater historic sites enrich our understanding of the past and provide extraordinary interpretive opportunities. This action will continue the underwater survey; develop a bi-state management approach, including public access to appropriate sites; and continue a study of zebra mussel impacts on shipwrecks.

ACCOMPLISHMENTS

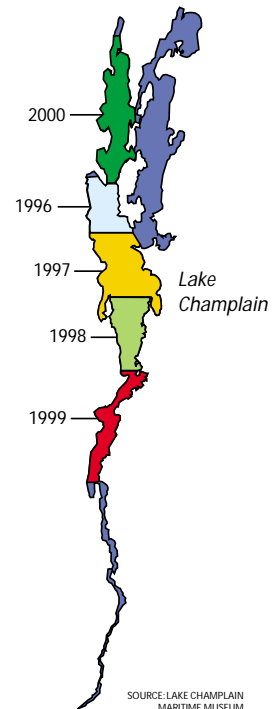
Mapping Shipwrecks:

With partial LCBP funding, the Lake Champlain Maritime Museum has mapped 200 square miles of the Lake and discovered many previously unknown shipwrecks, including Benedict Arnold's gunboat.

Historic Landings Trail:

Four of 20 signs about the Lake's maritime history have been posted around the Lake. Technical design assistance from the LCBP is also available to other organizations for interpretive sign projects.

Areas Mapped by the Underwater Survey, 1996-2000



8 Local Connections

STRENGTHENING LOCAL CONNECTIONS

Local involvement in planning and implementation is a cornerstone of the LCBP. From 1993-2001, the LCBP awarded more than \$2.1 million to 426 projects in New York and Vermont through several competitive grant programs. The LCBP also welcomes citizen input through participation at our public meetings, written or emailed comments and through contact with the Citizens Advisory Committees on Lake Champlain in New York, Vermont and Quebec. Some examples of LCBP local programs are described below.

KEY ACTIONS:

● Support local watershed, lake and river organization activities.

Continued support of the more than 25 current watershed, lake and river organizations and the development of more groups where needed is key to implementing the plan. The LCBP assists these groups with grants, training, facilitating communication, hosting webpages, providing technical expertise, and helping with public relations. Since 1992 more than \$736,000 of LCBP funds have been provided to watershed groups.

● Expand Technical and Financial Assistance for Local Watershed Planning.

The LCBP and its partners support local communities with projects such as shoreline protection, wetland conservation and sediment controls.



Lamoille County NRCD

An LCBP grant funded a program by the Lamoille County NRCD to train volunteers how to monitor streams.

WATERSHED GROUPS ONLINE!

Visit www.lcbp.org to learn about volunteer activities in a watershed, river or lake near you!



LEARNING ABOUT THE LAKE

Local connections and lake stewardship are also fostered through the numerous LCBP-supported information and outreach programs throughout the Basin. Since 1992, LCBP outreach programs have included: cooperating with other not-for-profits on education programs; bringing programs about the Lake to local schools; partnering with local media; creating the LCBP website (www.lcbp.org); and creating informative fact sheets, publications and newsletters.

KEY EXAMPLES:



The Lake Champlain Maritime Museum taught educators about the Lake's history at a CBEL workshop.

● Champlain Basin Education Initiative (CBEL) Workshops

Through CBEL, the LCBP partners with six local education organizations, including the Adirondack Visitor Interpretive Center and Shelburne Farms, to help classroom educators teach about the Lake. Since 1992, 474 educators have participated in CBEL workshops.

● Champlain 2000

The award-winning Champlain 2000 news series is a partnership among WPTZ News Channel 5, the LCBP and KeyBank. Since May 1999, this series has highlighted the people and programs working on Lake Champlain with over 100 programs on topics such as pulling water chestnuts, "adopt-a-salmon" and reducing pesticides. Champlain 2000 airs Mondays at 6 PM.

● The Leahy Center for Lake Champlain

Since its opening in 1995, the LCBP has supported the Center's (formerly called the LC Basin Science Center) student and family educational programs, hands-on learning and resource room. The LCBP will continue its support during the development of their new multi-million dollar facility and when the facility opens in 2003.



Bill Wellman

Trot Unlimited helped students from Morrisville Elementary (NY) raise salmon in their class and release them into a Lake Champlain tributary.

We Welcome Your Comments...

This special report gives many examples of the draft update to *Opportunities for Action*. Although the official public comment period ends on November 16, 2001, we welcome your comments on the draft and your thoughts about the program at any time.



The LCBP will be making presentations about the draft plan and taking comments at public meetings (see below). Comments may also be written or emailed to the LCBP.

Once the official comment period ends, the Lake Champlain Steering Committee will review the comments. The updated plan will be presented to the Governors of New York and Vermont and the Premier of Quebec, and federal agencies (USEPA) in February, 2002 for endorsements. **To get a full copy of the draft**, which is over 100 pages in length, contact the LCBP or visit our website to read it online.

Contact Us:

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PUBLIC MEETING SCHEDULE

Please join the LCBP and the Lake Champlain Citizens Advisory Committee at the following meetings. Contact the LCBP offices at (800) 468-5227 or (802) 372-3213 for directions. We hope to see you there!

Quebec

Date: Saturday, October 20, 2001
Time: 2:00 PM to 4:00 PM
Location: Euro-Spa in Stanbridge-East, Quebec.

Vermont

Date: Monday, October 22, 2001
Time: 6:00 PM to 8:00 PM
Location: Burlington Wastewater Treatment Facility Public Meeting Room in Burlington, VT.

New York

Date: Tuesday, October 23, 2001
Time: 6:00 PM to 8:00 PM
Location: Cornell Cooperative Extension Offices in Westport, NY.