

2009 Lake Champlain Action Plan



NORT GLACIALE



Annual Report of the Vermont Citizens Advisory Committee (VTCAC) on Lake Champlain's Future

A requirement of 10 V.S.A. §1961

LAC CHAMPLAIN 2009 PLAN D'ACTION

APERÇU

«Nous sommes arrivés à 2009, année du quatre-centième anniversaire de la venue Samuel de Champlain au lac portant maintenant son nom. La planification des fêtes du quatre-centième nous a fait découvrir de nombreux pans d'histoire relative aux périodes précédant et suivant l'arrivée de Champlain. Le lac est un havre matériel et spirituel pour les gens depuis près de 12 000 ans. Nous sommes maintenant investis du mandat d'améliorer l'état du lac dans l'intérêt des générations à venir.»

— Buzz Hoerr, Président,
Comité Consultatif des Citoyens du Vermont (VTCAC)

Depuis 10 ans, le VTCAC recommande fortement l'accélération du financement en vue d'atteindre les cibles de réduction du phosphore avant 2009, année du 400^e anniversaire de l'arrivée de l'explorateur Samuel de Champlain au lac Champlain. Même si les améliorations de la qualité des eaux du lac demeurent problématiques, des investissements publics substantiels—financiers, matériels et intellectuels—ont eu lieu, et on en constate les retombées dans l'ensemble du bassin hydrologique. Le programme *Clean and Clear* du Gouverneur, conjugué à une contribution marquée des citoyens par le truchement du VTCAC, a permis jusqu'à maintenant l'engagement de plus de 42 millions \$ en fonds de l'état, somme que le gouvernement fédéral a plus qu'égalée en allouant des fonds additionnels de plus de 42 millions \$ pour dépolluer le lac Champlain.

Les efforts déployés par l'état du Vermont en vue de l'amélioration de la qualité des eaux continuent d'être coordonnés par le *Center for Clean and Clear*, un organisme multidisciplinaire regroupant les talents des agences des Ressources naturelles et de l'Agriculture. Le plan d'action de l'an dernier appuyait la création et la mission de ce centre, lequel a mis au point en 2008 un plan de travail axé sur la réduction de la pollution par le phosphore dans la partie nord du lac Champlain. Le VTCAC recommandait fortement l'inclusion au plan de travail des intérêts de la partie sud du lac, étant donné que les passages nord et sud du lac Champlain sont ceux qui sont les plus défavorisés. Avec l'aide et l'orientation du VTCAC, le *Center for Clean and Clear* a collaboré étroitement avec le *South Lake Group* à l'élaboration d'un plan de

PRIORITÉS CAPITALES

1. Ramener le financement des dons incitatifs pour les plans exhaustifs de gestion des nutriments (PGN) et les programmes relatifs aux pratiques agricoles au niveau de 750 000 \$, à savoir le niveau pré-récession afin d'appuyer les plans exhaustifs de gestion des nutriments à long terme.
2. Protéger la faune, la flore et les communautés indigènes pour contenir la progression des espèces envahissantes, pour conserver et restaurer les habitats naturels et pour gérer la faune adaptative.

travail visant le passage sud du lac. Ces efforts ont été soulignés l'automne dernier dans le cadre d'une visite en bateau organisée par le CAC à l'intention du Vermont, de l'état de New York et du Québec, pour une tournée visant à constater les points chauds en matière de nutriments dans le passage sud du lac.

Les centres CAC ont collaboré à des initiatives portant sur les algues bleues, et plusieurs étapes ont été franchies au Québec. Le gouvernement du Québec a adopté en 2008 deux nouvelles réglementations visant la réduction des sources de nutriments favorisant les algues bleues. La première limite la teneur en phosphate des détergents pour lave-vaisselle, tandis que la seconde autorise les municipalités à faire respecter des restrictions sur les déversements des eaux usées provenant des embarcations de plaisance.

Nous célébrerons cette année 400 ans de patrimoine vivant et d'histoire économique dans le bassin du lac Champlain, mais nous célébrerons aussi les cultures uniques qui habitent la région depuis bien avant la venue de Samuel de Champlain. Nous espérons que, à notre tour, nous serons reconnus pour le rôle que nous aurons joué dans la sensibilisation des gens à leur impact sur le bassin hydrologique et dans la prise de décisions personnelles et institutionnelles visant la dépollution des eaux que nous partageons. En assumant notre responsabilité avec cœur, nous pouvons apporter les changements nécessaires pour remettre le lac dans un état plus proche de ce qu'il était lors de l'arrivée de Samuel de Champlain.

— French translation by Claude Ghanimé

LAKE CHAMPLAIN 2009 ACTION PLAN

OVERVIEW

"We have reached 2009, the 400th anniversary of the arrival of Samuel de Champlain to the Lake that now bears his name. Planning for the Quadricentennial Celebration has taught us much about history before and after Champlain's arrival. The Lake has been a physical and spiritual home for people for nearly 12,000 years. We are now entrusted to improve the Lake's health for future generations."

— Buzz Hoerr, Chair

Vermont Citizens Advisory Committee (VTCAC)

For 10 years, the VTCAC has strongly advocated for accelerating funding to meet phosphorus load targets by 2009, the 400th anniversary of explorer Samuel de Champlain's arrival to Lake Champlain. While immediate in-lake water quality improvements have been elusive, substantial public investment—financial, physical and intellectual—occurred and is evident throughout the watershed. The Governor's Clean and Clear Program, with significant input from the VTCAC, has committed more than \$42 million of state funds to date, which leveraged more than \$42 million of additional federal funds towards cleaning up Lake Champlain.

State of Vermont water quality improvements continue to be coordinated through the Center for Clean and Clear, a cross-agency office that combines talents from the Agencies of Natural Resources and Agriculture. Last year's Action Plan supported the formation and mission of this center. The Center produced a workplan in 2008 that addressed phosphorus pollution reduction in northern Lake Champlain. The VTCAC advocated strongly for the inclusion of South Lake interests in this workplan, since far northern and southern Lake Champlain are the most impaired areas. With help and guidance from the VTCAC, the Center for Clean and Clear is working closely with the South Lake Group on a South Lake workplan. These efforts were celebrated last fall on a joint Vermont, New York and Quebec Citizens Advisory Committee boat tour of nutrient hot spots in the South Lake.

The joint Citizens Advisory Committees have been active in blue-green algae initiatives, and several milestones were reached in Quebec. The Quebec government adopted two new regulations in 2008 designed to reduce nutrient sources for blue-green algae blooms. The first regulation diminishes phosphates in dishwasher detergent. The second authorizes municipalities to enforce

HIGHEST PRIORITIES

1. Restore funding for the combined Nutrient Management Plan (NMP) Incentive Grant and Farm Agronomic Practices programs to 2009 pre-rescission levels of \$750,000 to support long-term comprehensive NMPs.
2. Protect native plants, animals and natural communities through invasive species spread prevention, habitat conservation and restoration, and adaptive wildlife management.

restrictions on wastewater spillage from recreational boats.

As we celebrate 400 years of vibrant heritage and economic history in the Lake Champlain Basin, we also celebrate the unique cultures that inhabited this region long before Samuel de Champlain's arrival. As we look to the future, we need to ask ourselves how our successors will view our time here. We hope to be celebrated for recognizing our impact on the watershed and making personal and institutional decisions that led to restoring our shared waters. By embracing our responsibility we can make changes necessary to return lake conditions closer to what they were at the arrival of Samuel de Champlain.



Ferry leaving Grand Isle, Vermont for Plattsburgh, New York.

Erik Beck, USEPA

ACTIONS TO IMPROVE WATER QUALITY

The Lake Champlain Basin Program (LCBP) released the 32-page *State of the Lake and Ecosystem Indicators Report* in 2008. This document answers important questions frequently asked by the public and lake managers about the health of Lake Champlain ranging from phosphorus, algae and human health to biodiversity and aquatic invasive species. The 2008 report also includes an ecosystem indicators scorecard that summarizes the health by issue for each of the Lake's five major areas or segments: Missisquoi Bay, Northeast Arm (Inland Sea), Malletts Bay, Main Lake, and South Lake.

Phosphorus levels in the Lake remain the greatest concern for parts of Lake Champlain, as phosphorus is the primary factor in nuisance algae blooms. The pattern is unchanged from the last *State of the Lake Report* in 2005: Missisquoi Bay, South Lake and Northeast Arm continue to deteriorate due to too much phosphorus; the Main Lake and Malletts Bay are very close to phosphorus targets; and Burlington Bay, Cumberland Bay and Shelburne Bay are doing better than their targets.

- **Support the inclusion of nonpoint source discharges in the draft Water Quality Anti-Degradation Implementation Rule**

The VTCAC encourages the Vermont Agency of Natural Resources (VTANR) to include nonpoint source and stormwater discharges in its rules implementing the Vermont Water Quality Standards (VWQS) Anti-Degradation Policy. The draft rule should be based on policy review guidance from other states and the US Environmental Protection Agency. The VTCAC encourages VTANR to facilitate full public participation, engagement and discussion on practical means to adopt its rules implementing this policy as quickly as possible. The VWQS Anti-Degradation Policy protects and maintains high quality waters, and minimizes risks to existing and designated water uses throughout Vermont, including the Lake Champlain Basin.

Elevated levels of phosphorus in Missisquoi Bay contribute to extensive and persistent blue-green algae blooms.

LEGISLATIVE ACTIONS

- **Restore funding for Nutrient Management Plans (NMPs) and Farm Agronomic Practices at 2009 pre-rescission levels of \$750,000**

Supporting comprehensive Nutrient Management Plan (NMP) development on farms in agriculturally impaired waters in the Lake Champlain Basin has been a two-year priority for the VTCAC. Comprehensive NMPs are effective tools to reduce nonpoint farm runoff that also offer farmers economic savings. The state NMP Incentive Grant program covers costs of developing the plans and three years of plan updates. Since 2005, the Vermont Agency of Agriculture, Food and Markets (VAAFAM) approved 236 NMP contracts on more than 128,000 acres statewide for \$2,078,833, mostly in the Lake Champlain Basin. After four years, participants are no longer eligible for incentive grants. The Farm Agronomic Practices program (FAP) supports NMP maintenance and updates after the first four years. The FAP promotes additional soil conservation practices such as cover cropping, crop rotation and cross-slope tillage. The VTCAC requests that the joint NMP/FAP request for 2010 be restored to 2009 pre-rescission levels of \$750,000.



Larry Dupont, VTCAC & NLAC

STATE AGENCY ACTIONS

- **Link funds spent on Lake Champlain cleanup to environmental benefits**

The VTCAC recommends that state and federal funds spent on Lake Champlain cleanup be linked to environmental benefits, such as erosion control and projected phosphorus reductions. The VTCAC understands the limitations of quantifying benefits and that Best Management Practices prevent pollution rather than reverse prior effects. Two projects underway address these needs. First, VTANR Clean and Clear and LCBP funds were combined to support the *Environmental Accounting System to Track Nonpoint Source Phosphorus* being conducted by the University of Vermont. Second, the International Joint Commission is funding a series of technical workshops in partnership with LCBP to define and identify critical source areas of phosphorus pollution in the Missisquoi Bay watershed. Insights from both projects are expected to identify major sources and potential reductions of phosphorus.



Michaela Stedney, LCBP

The Vermont and New York Citizens Advisory Committees, and the South Lake Group toured lake conditions aboard the M/V Carillon in the fall.



VAAFM

- **Expand compliance using existing water quality protection rules and regulations**

The VTCAC believes that Vermont has reasonable water quality protection rules and regulations governing nonpoint sources of water pollution. The immediate challenge is enforcing existing regulations to increase compliance. In 2008, more than 2000 farm visits occurred statewide for either technical assistance or enforcement. The VAAFM's enforcement system needs to be expanded to cover more farm land and result in increased effectiveness and compliance. More technical assistance will help farmers exceed requirements. Redirecting existing staff towards compliance monitoring will help accomplish increased compliance without adding costs.



VAAFM



VAAFM

Last year's highest VTCAC priority was to secure \$1.1 million from VTANR and VAAFM to address the engineering backlog for federal Environmental Quality Incentive Grant (EQIP) funds. These photos are examples of the types of projects successfully designed. The sequence shows the installation of vegetated filter strips and a settling pond to control silage leachate.

ACTIONS TO PROTECT NATIVE PLANTS, ANIMALS AND HABITAT

The Lake Champlain Basin Aquatic Invasive Species Rapid Response Team, convened by the LCBP, released its response protocol in 2008. The protocol creates a decision making framework to rapidly confirm and remediate introductions of aquatic invasive species. Permitting experts from the three jurisdictions determined how to navigate and expedite their respective permit processes. The next step is for the protocol to be adopted by leaders from the three implementing agencies in Vermont, New York and Quebec.

STATE AGENCY ACTIONS

- **Support Champlain Canal cooperation**

The LCBP, New York State Canal Corporation (NYSCC) and Department of Environmental Conservation (NYSDEC), and VTANR are working together to reduce aquatic invasive species (AIS). The VTCAC encourages these partners to pursue funding for an AIS barrier feasibility study. The Champlain Canal is identified as a potential and likely vector for AIS to enter the Lake and risks are immediate. Currently, spiny waterflea and asian clam are found in Great Sacandaga Lake, which connects to the Champlain Canal via a feeder canal between Locks 8 and 9. Nearby Lock 12 is in Whitehall, New York, at the mouth of Lake Champlain.

- **Commit to long-term success of water chestnut control**

More water chestnut management milestones were set in 2008. Lake Champlain water chestnut populations north of Red Rock Bay in Benson, Vermont were effectively managed. Of these, 16 sites were found with no water chestnut plants this year. Rapid response controls were initiated at one new water chestnut invasion in the Lake near Crown Point, New York. Efforts continued to reduce dense water chestnut beds from Benson, Vermont south to Whitehall, New York. Newly acquired permission to off-load and compost spoils on private property in Vermont was invaluable in stretching already limited partnership dollars by reducing transportation costs, despite record high fuel costs. This final 2008 milestone was not only important to this year's efforts, but is important for the continued success of future water chestnut management efforts as well. Long-term funders for this initiative include: VTANR, LCBP, NYSDEC, US Army Corps of Engineers, USEPA, The Nature Conservancy, NYSCC, and others.

- **Support sea lamprey control measures including non-chemical options**

The VTCAC supports continuous and consistent sea lamprey control measures to keep populations in check and to foster a healthy ecosystem and fishery. The VTCAC strongly urges continued research into non-chemical controls and encourages the State of Vermont to assist in the research and implementation of alternatives to aquatic pesticides. The



Photo courtesy of Lake Champlain International, Inc.

Lake Champlain waters support a vibrant bass fishery. The Lake Champlain Fish and Wildlife Management Cooperative will publish their Strategic Plan for Lake Champlain Fisheries in summer 2009.

VTCAC also believes the State of Vermont should be a full partner in the sea lamprey control program implemented by the Lake Champlain Fish and Wildlife Management Cooperative—sharing costs and expertise as needed for the program to be effective, environmentally sensitive and responsive to citizen concerns.

- **Restore fish passage in the Lake Champlain Basin**

The VTCAC, along with partners Lake Champlain International, Lake Champlain Committee, The Nature Conservancy, and the Northern Lake Citizens Advisory Committee, supports restoration of fisheries, fish populations and fish habitat in Lake Champlain and its tributary streams. Restoring natural lake and river processes and habitat connectivity is critical to success. The VTCAC encourages the state to explore potential benefits of removing the Swanton

Dam for fish passage restoration, and removing portions of the Carry Bay and Missisquoi Bay causeways for shallow water connectivity restoration.

- **Partner with fishing tournaments, marinas and boat clubs to reduce aquatic invasive species**

Preventing the spread of aquatic invasive species (AIS) is a priority of the LCBP and the Lake Champlain Basin AIS Rapid Response Team, a coalition of Vermont, New York and Quebec experts. This approach may include incorporating spread prevention materials in registration packets and offering courtesy boat inspections for AIS, among other options. The VTANR has recently partnered with Lake Champlain International (LCI), organizer of the LCI fishing derbies, to tackle this issue by distributing Public Service Announcements. Estimates indicate that it would cost several hundred dollars for a fishing or recreational boating event to include AIS spread prevention materials in registration or information packets to participants.

ACTIONS TO ENHANCE RECREATION AND CULTURAL HERITAGE RESOURCES

The Vermont Lake Champlain Quadricentennial Commission, a 26-member board established by Governor Douglas in 2003 has been actively planning the 400th anniversary celebration for five years. One goal is to inform thousands of new visitors to the Champlain Valley Region about the heritage of the land, the Lake and the people. In 1909, more than 65,000 people came to Burlington to participate in the Tercentennial Celebration including the US president, and heads of state of Canada, France and the United Kingdom. Thanks to the hard work of many people, the legacy of this 400th anniversary will last far beyond the actual events this year. According to US National Park Service estimates, if properly executed, the Quadricentennial could have a regional economic impact of \$43 million in 2009.

The Lake Champlain Maritime Museum schooner Lois McClure traveled to Quebec City for their Quadricentennial Celebration in 2008.

- **Upgrade existing public access to Lake Champlain**

The State of Vermont owns 33 access areas on Lake Champlain, 30 of which have boat ramps. Three are fishing access only and two have universal shore fishing platforms which accommodate young, elderly or handicapped visitors. Only thirteen of these sites have docks. Annually, the VTFWD spends on average \$91,000 to maintain these access areas, \$62,000 on portalets and \$30,000 on winter plowing. In addition to regular maintenance, several sites are in serious need of repair and upgrades. One area of particular concern is the access area at Chimney Point, under the Lake Champlain Bridge. It is important to upgrade this facility in time for the Quadricentennial Celebration of Samuel de Champlain's arrival to the region when signature events will be happening at each end of the historic bridge in September.

- **Support Lake Champlain's new National Heritage Area**

Planning for the newly designated Champlain Valley National Heritage Partnership (CVNHP) is underway. There are only 40 National Heritage Areas nationwide. The LCBP has presented the concept to more than 700 people at 25 public planning meetings. Public reaction to the new heritage area is positive. The formal scoping process for the plan will begin in early 2009, and a draft plan and environmental assessment will be published later in 2009. Input from the VTCAC and members of the Vermont Legislature is important in developing a valued management plan for the CVNHP and securing economic benefits to the region.



Jean Belisle, PhD, Concordia University, Quebec

VERMONT CITIZENS ADVISORY COMMITTEE (VTCAC) ON LAKE CHAMPLAIN'S FUTURE

The VTCAC is a diverse group of citizens, lake advocates, business representatives, farmers, and legislators united through their interest in a clean, healthy Lake Champlain. The VTCAC members are appointed by the Governor or by the Vermont Legislature for two or three year terms. They are charged with submitting an annual report to the Vermont Legislature that maps out recommended actions to protect the future integrity of the Lake ranging from ecological and educational to recreational and cultural heritage aspects. The Vermont, New York and Quebec CACs each hold a seat on the Lake Champlain Steering Committee, the governing board for the Lake Champlain Basin Program (LCBP). The VTCAC members provide input on the LCBP's annual budget and outreach programs, and guide the selection of annual Partnership Program grants. The VTCAC wishes to recognize outgoing members, Representatives John Zenie and Dexter Randall, for their valuable contributions, and to welcome new members, Representatives Kate Webb and Kristy Spengler.

Buzz Hoerr, Chair

*Business Owner
Colchester
hoerrfam@msn.com*

James Ehlers

*Business Executive
Colchester
james@elkpublishing.com*

Sandy Kuehn

*Teacher
West Haven
kuehns@hughes.net*

Jan Peterson, Vice Chair

*Educator
North Hero
janpeterson132@yahoo.com*

Lori Fisher

*Lake Champlain Committee
Burlington
lorif@lakechamplaincommittee.org*

Representative Dexter Randall

*North Troy
drandall@leg.state.vt.us*

Senator Claire Ayer

*Addison County & Brandon
cayer@leg.state.vt.us*

Paul Hansen

*Business Owner
Alburgh
shop13@verizon.net*

Senator Ginny Lyons

*Chittenden County
vlyons@leg.state.vt.us*

Eric Clifford

*Dairy Farmer
Starksboro
clifford@together.net*

Peter Kreisel

*CPA/Business Consultant
Burlington
peter@kreiselgear.com*

Ted Tyler

*Resort Owner
Highgate Springs
edwardtyler@comcast.net*

Larry Dupont

*N. Lake Champlain Advisory Committee
North Hero
lwdupont@aol.com*

Representative John Zenie

*Colchester
jzenie@leg.state.vt.us*

Michaela Stickney

*Vermont Lake Champlain Coordinator
Lake Champlain Basin Program
(802) 241-3619 • michaela.stickney@state.vt.us*

For more information:

Lake Champlain Basin Program

(800) 468-5227 (VT & NY) • (802) 372-3213 • www.lcbp.org

photo: VTCAC